

APPENDICES

June 2019

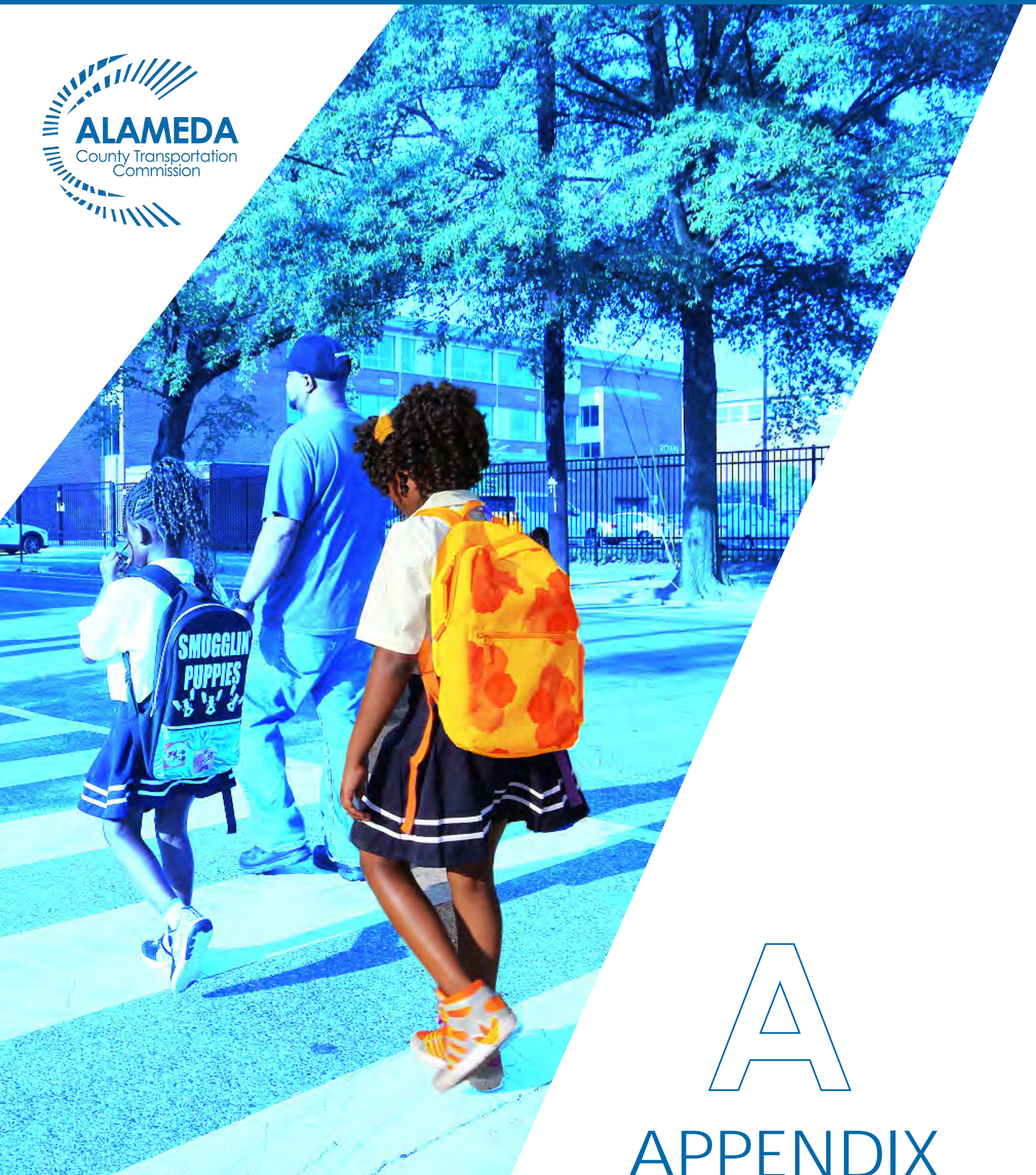
Appendices

Appendix A: Bicycle Needs Analysis

Appendix B: Methodology Memorandum

Appendix C: Collision Trends & Profiles

Appendix D: Maps by Planning Area



A

APPENDIX

Bicycle Needs Analysis

The BNA evaluates connectivity of Census blocks within biking distance (3.1 miles, approximately a 30-minute ride) of one another, and then assesses the number and types of destinations available within each of those blocks. Blocks are only considered connected if there is an unbroken low-stress connection between them. In other words, even a short stretch of stressful biking negates a potential connection. Last, the BNA considers detour: if a low-stress route goes more than 25% out of the way compared to a direct route, that low-stress route is not considered available.

The BNA scores each block based on the proportion of destinations an *Interested but Concerned* rider can access. If there are five schools in biking distance, but only two are on a low-stress network, the block scores worse than if all five were connected. The total scores shown are the sum of scores in across different types of destinations (e.g., retail, jobs, etc.), and a higher overall score means the area is more connected on the low-stress bicycle network. Scores calculated on an individual Census block level enable planners to see connectivity at a granular level. The results later presented here are aggregated to the four Alameda CTC planning areas.

In addition to showing the existing connectivity of a bicycle network, the BNA can help visualize the impact of planned bicycle improvements from existing communities' plans. These results are shown in planning area focus sections below. The BNA results can also be used to examine connectivity around particular destinations of countywide significance such as transit stations and activity centers.

Local BNA Maps

Local bicycle connectivity maps for each jurisdiction are provided on the following pages. Maps for each jurisdiction are provided displaying:

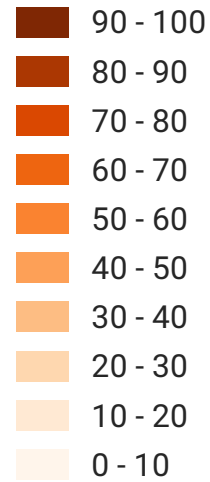
- Existing Bicycle Network Analysis
- Planned Bicycle Network Analysis
- Changes in BNA Scores



Existing BNA Scores

Alameda

Existing BNA Scores

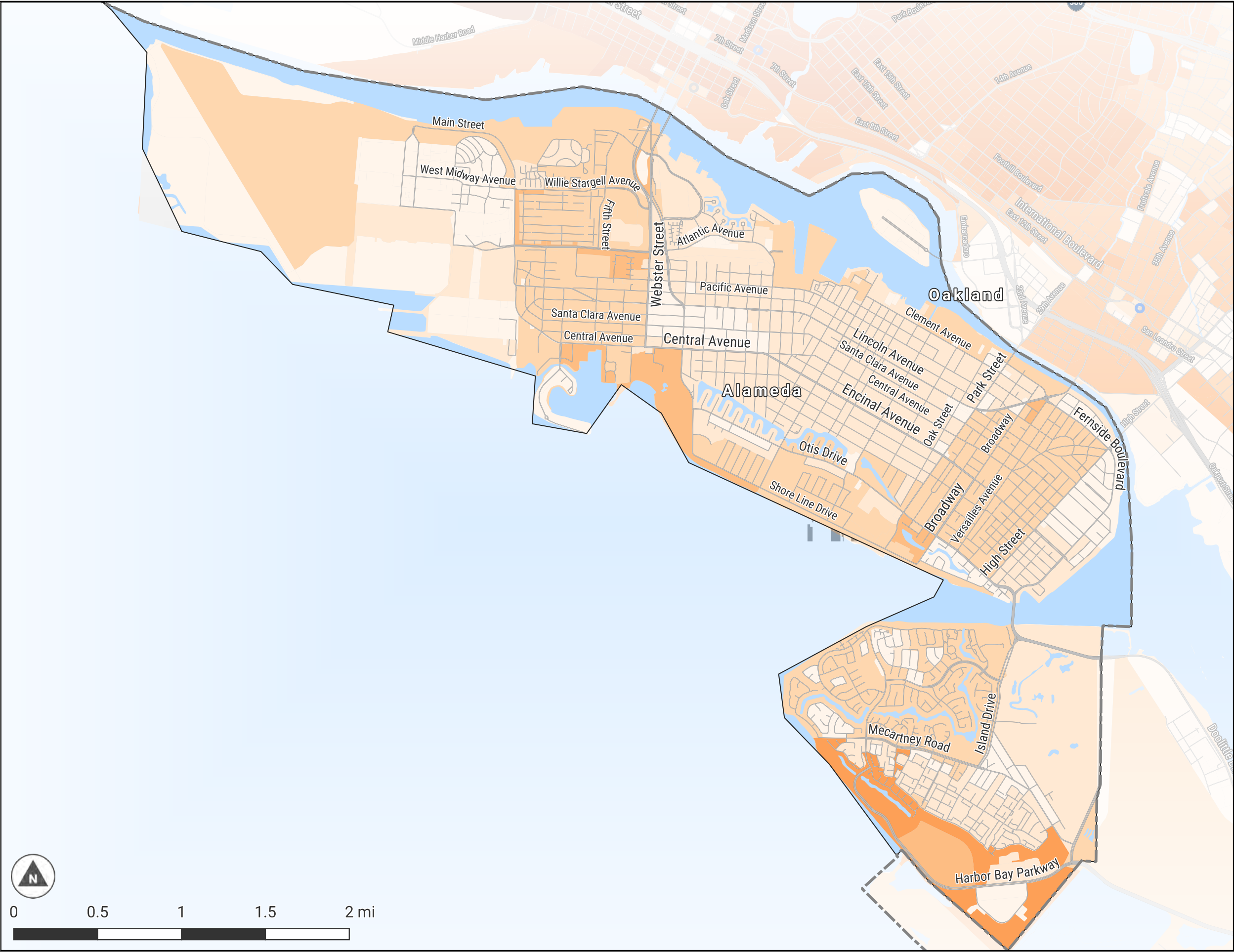


Other

- BART Station
- Amtrak Station
- BART Lines

Note: Bicycle facility data used for this analysis were those received from local staff, current as of March 2018.

Alameda CTC Countywide
Active Transportation Plan

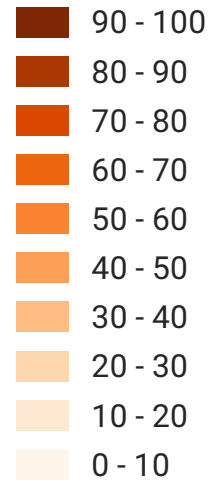




Planned BNA Scores

Alameda

Planned BNA Scores

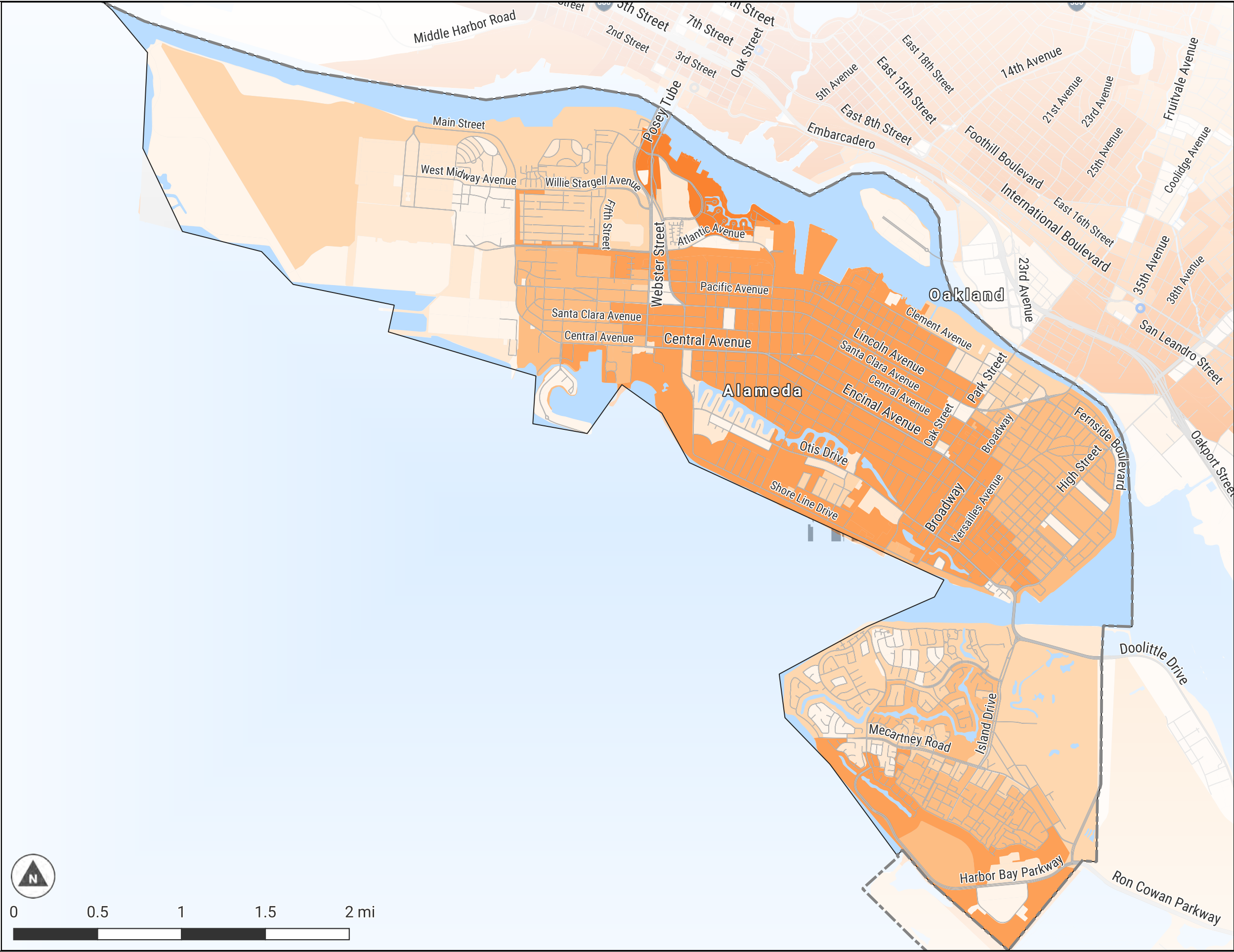


Other

- BART Station
- Amtrak Station
- ══ BART Lines

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Alameda CTC Countywide
Active Transportation Plan





Changes in BNA Scores
Alameda

Changes in BNA Scores

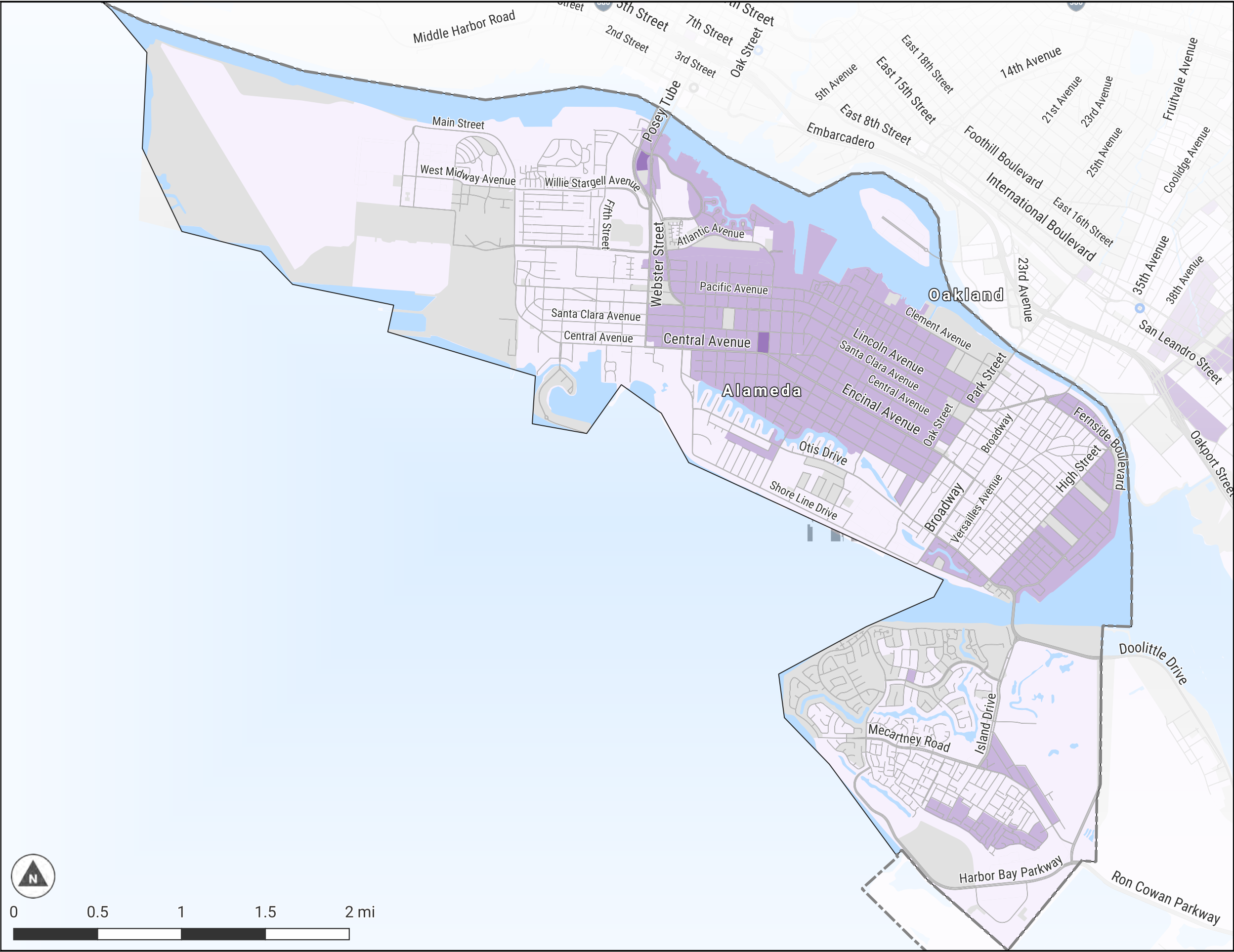
- 80 +
- 60 - 80
- 40 - 60
- 20 - 40
- 0 - 20

Other

- BART Station
- Amtrak Station
- BART Lines

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Alameda CTC Countywide
Active Transportation Plan

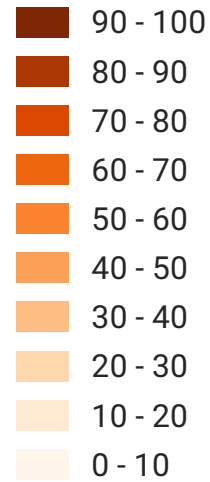




Existing BNA Scores

Albany

Existing BNA Scores

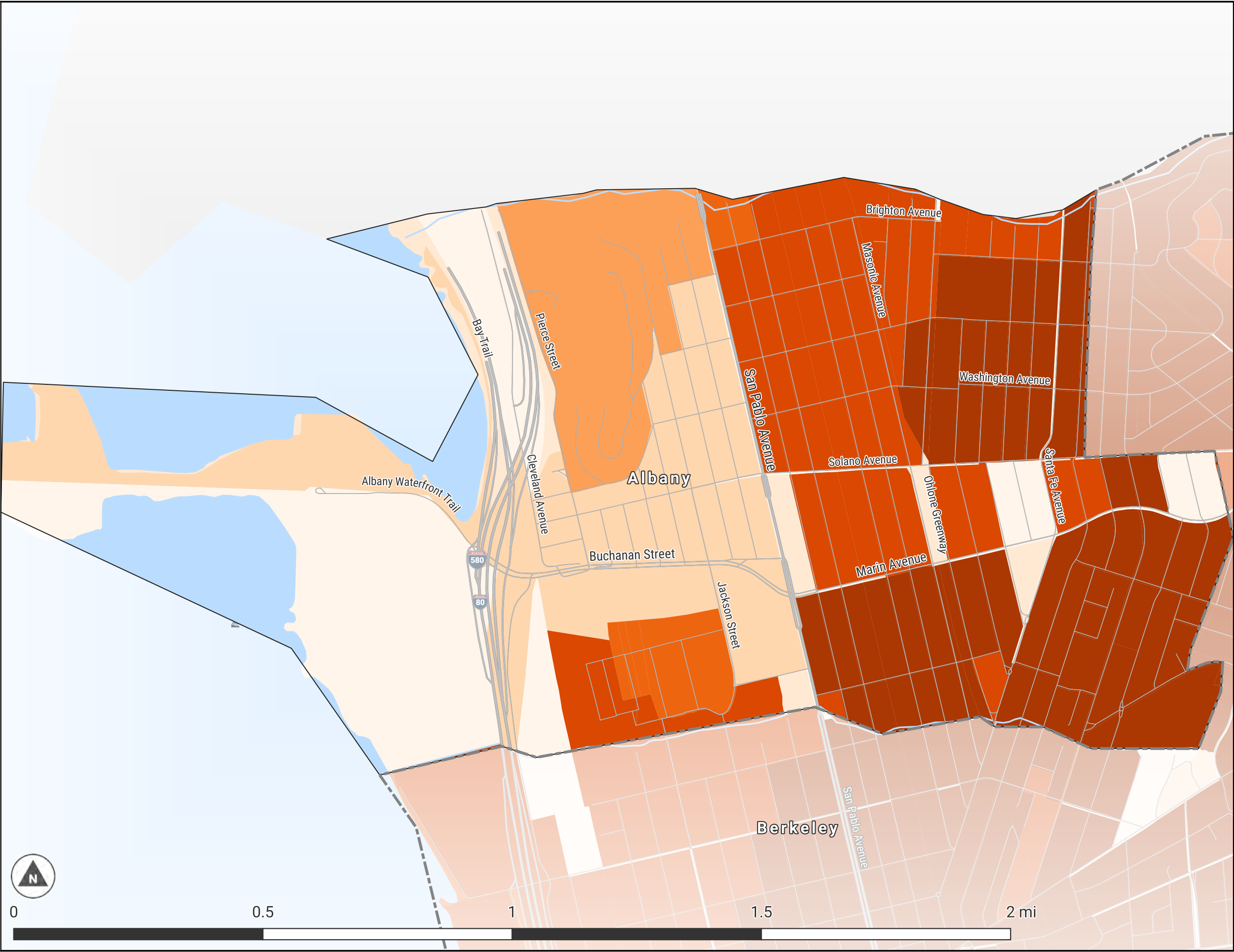


Other

- BART Station
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- BART Lines

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Alameda CTC Countywide Active Transportation Plan

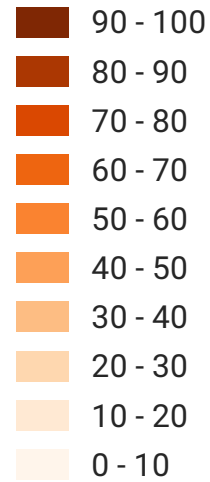




Planned BNA Scores

Albany

Planned BNA Scores

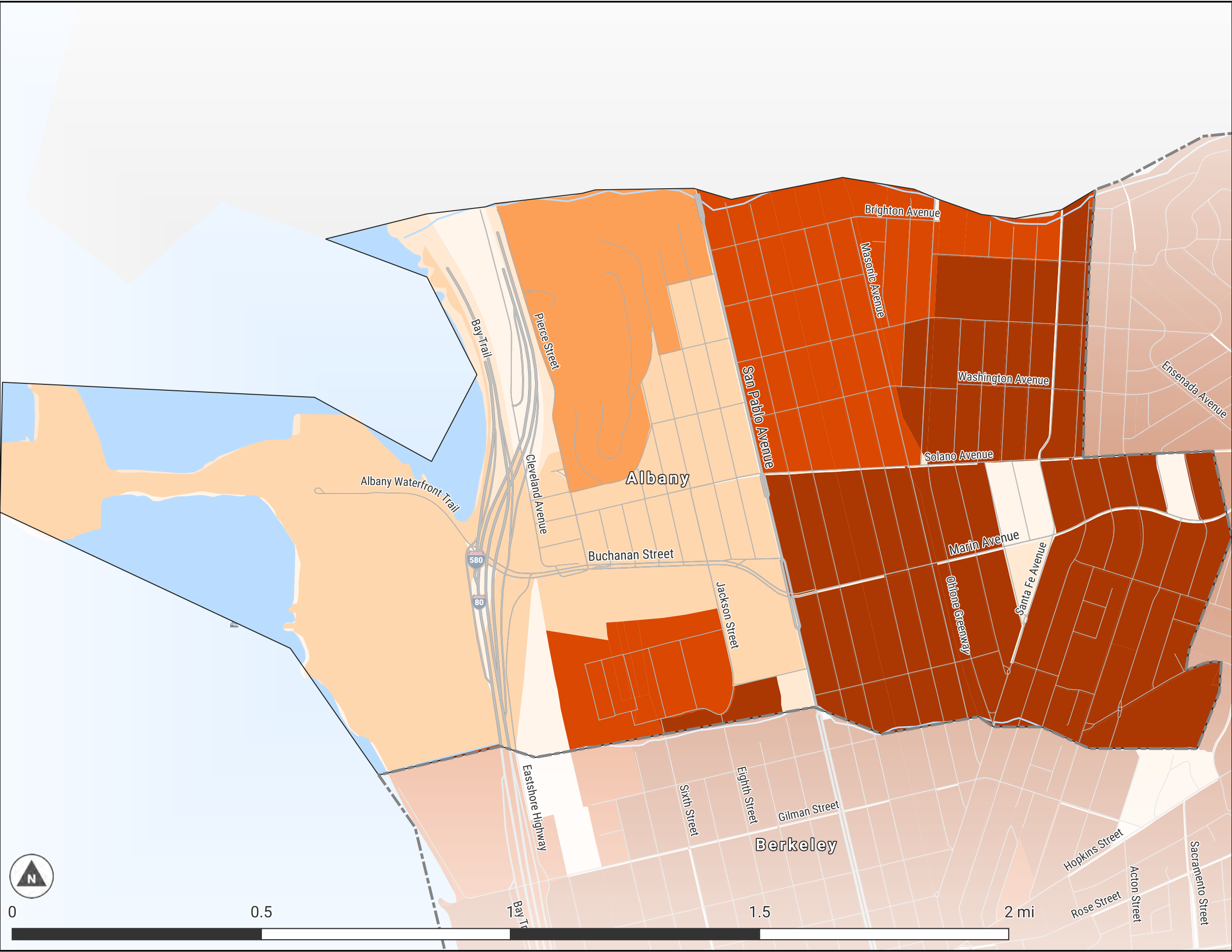


Other

- BART Station
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Alameda CTC Countywide
Active Transportation Plan





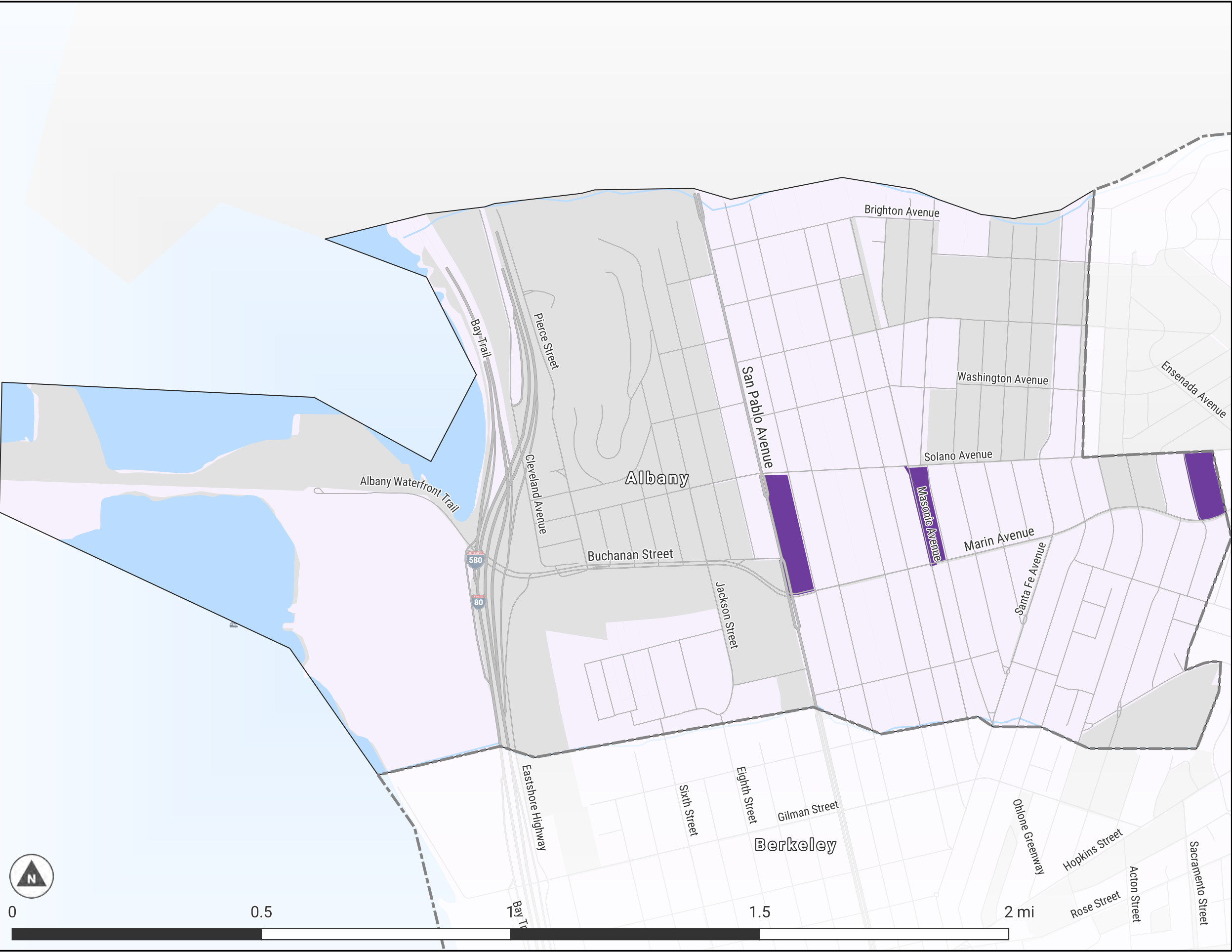
Changes in BNA Scores
Albany

Changes in BNA Scores

- 80 +
- 60 - 80
- 40 - 60
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- 0 - 20

Other

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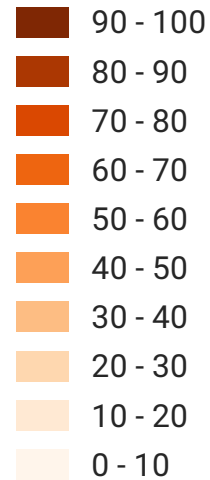
Alameda CTC Countywide
Active Transportation Plan



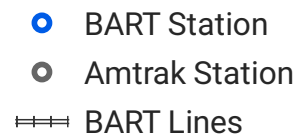
Existing BNA Scores

Berkeley

Existing BNA Scores

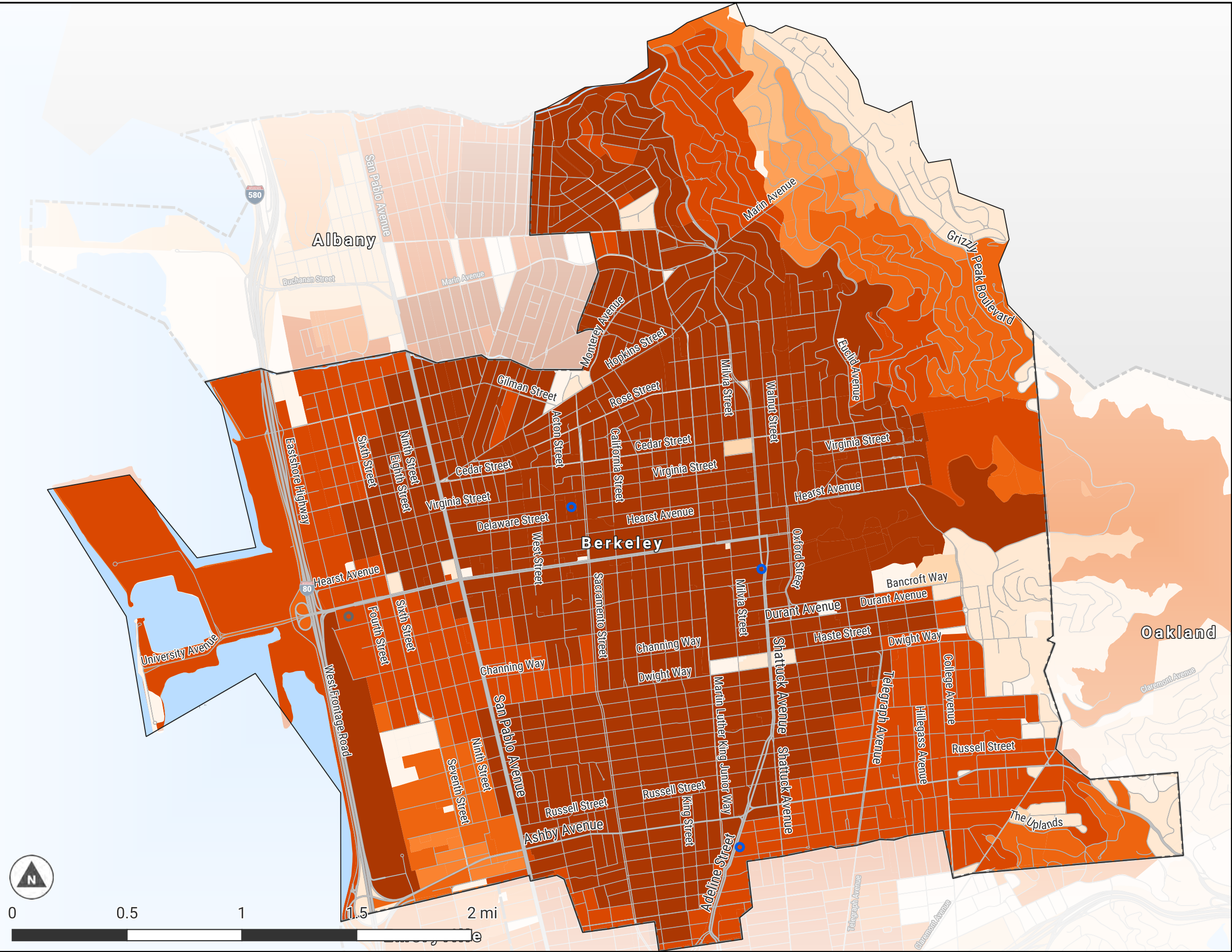


Other



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Alameda CTC Countywide
Active Transportation Plan

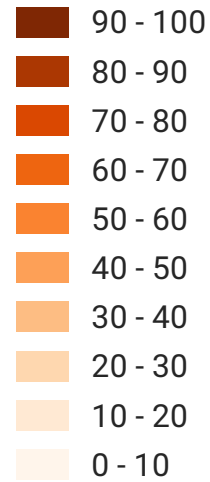




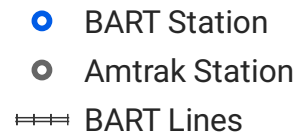
Planned BNA Scores

Berkeley

Planned BNA Scores

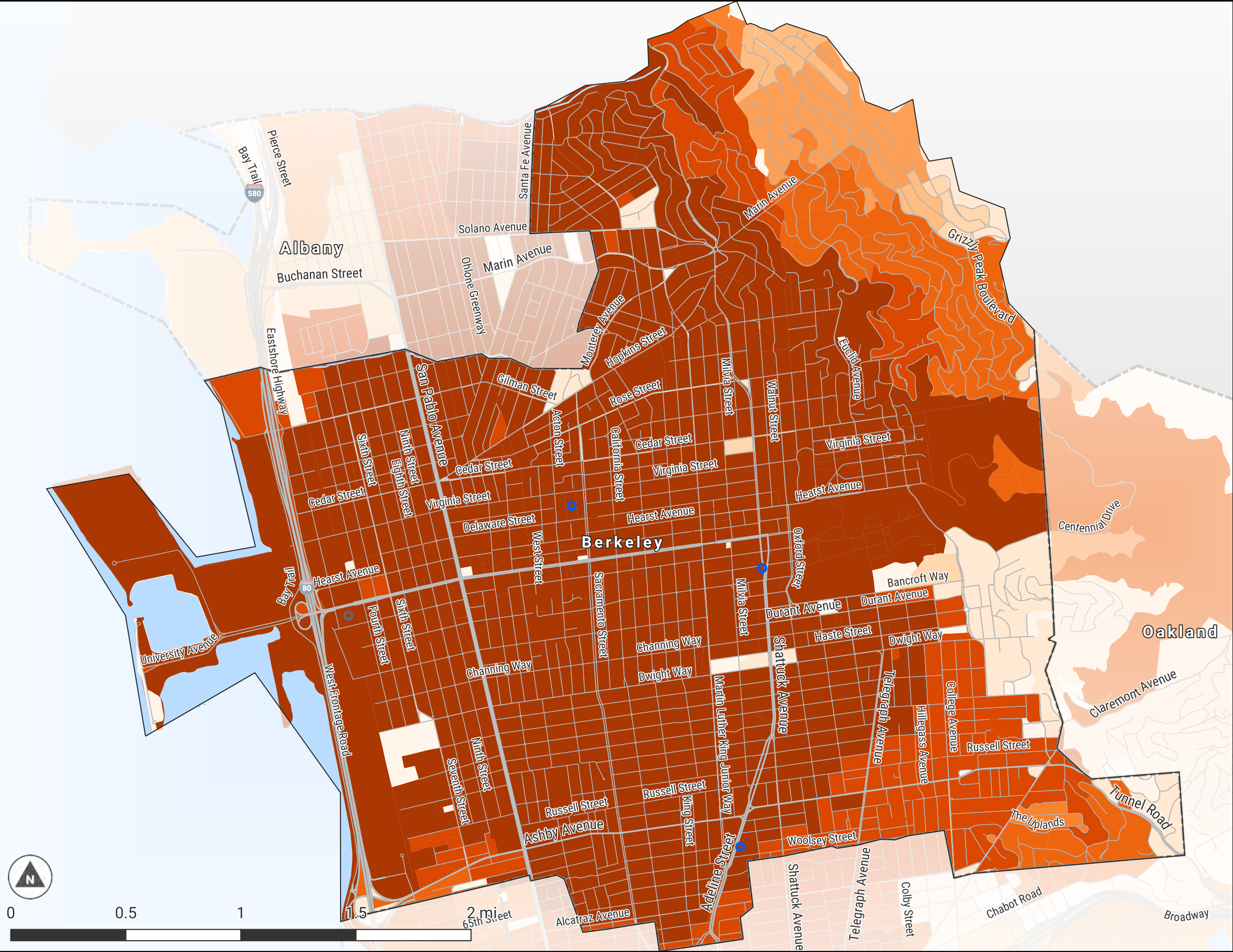


Other

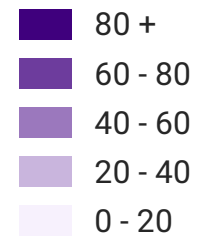


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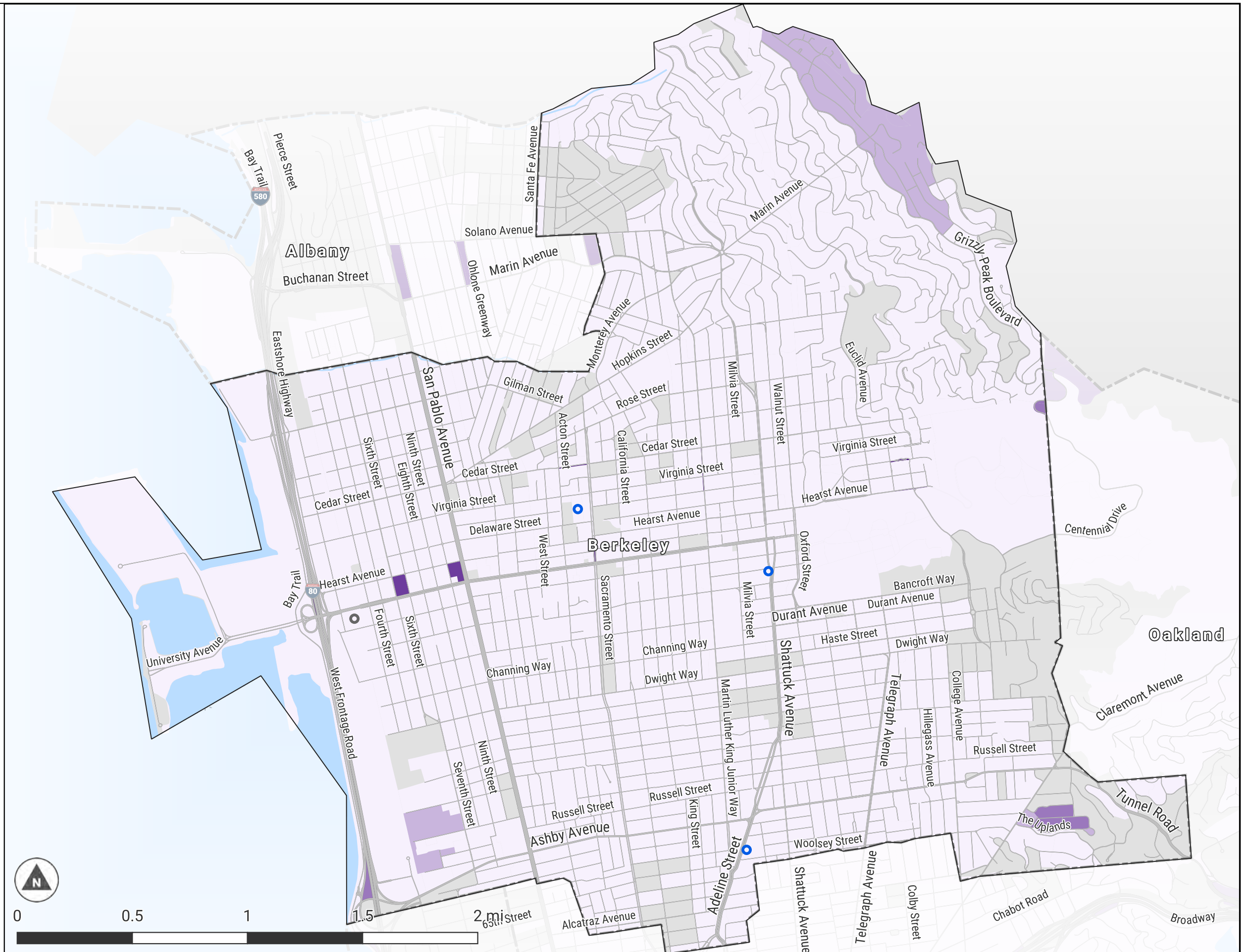
Alameda CTC Countywide
Active Transportation Plan



Changes in BNA Scores



-  BART Station
-  Amtrak Station
-  BART Lines

Alameda CTC Countywide
Active Transportation Plan



Existing BNA Scores

Dublin

Existing BNA Scores

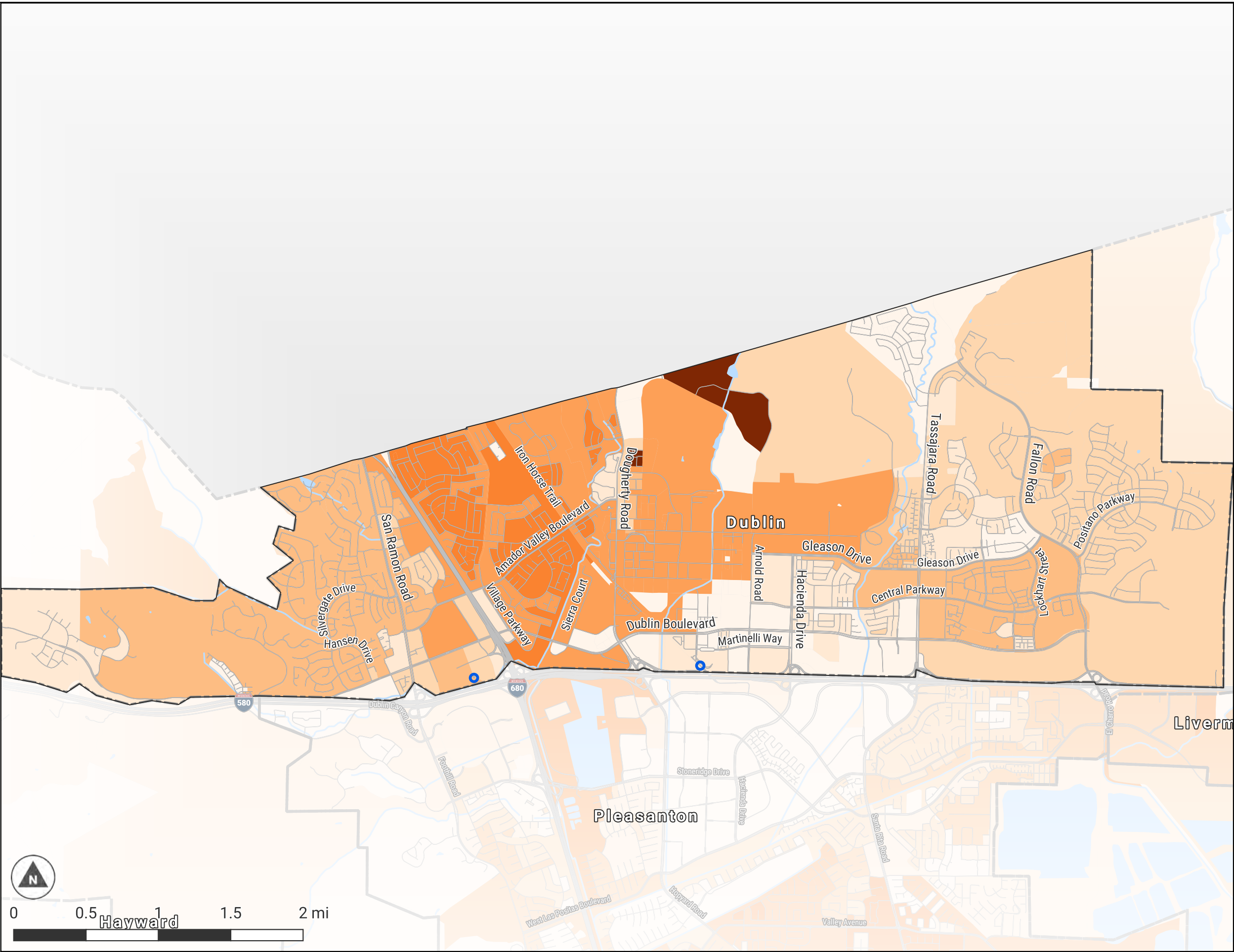
- 90 - 100
- 80 - 90
- 70 - 80
- 60 - 70
- 50 - 60
- 40 - 50
- 30 - 40
- 20 - 30
- 10 - 20
- 0 - 10

Other

- BART Station
- Amtrak Station
- BART Lines

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Alameda CTC Countywide Active Transportation Plan

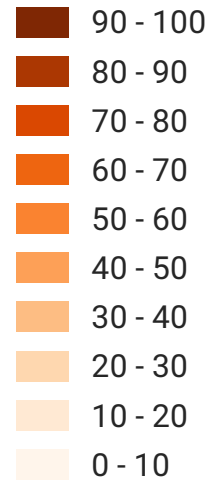




Planned BNA Scores

Dublin

Planned BNA Scores

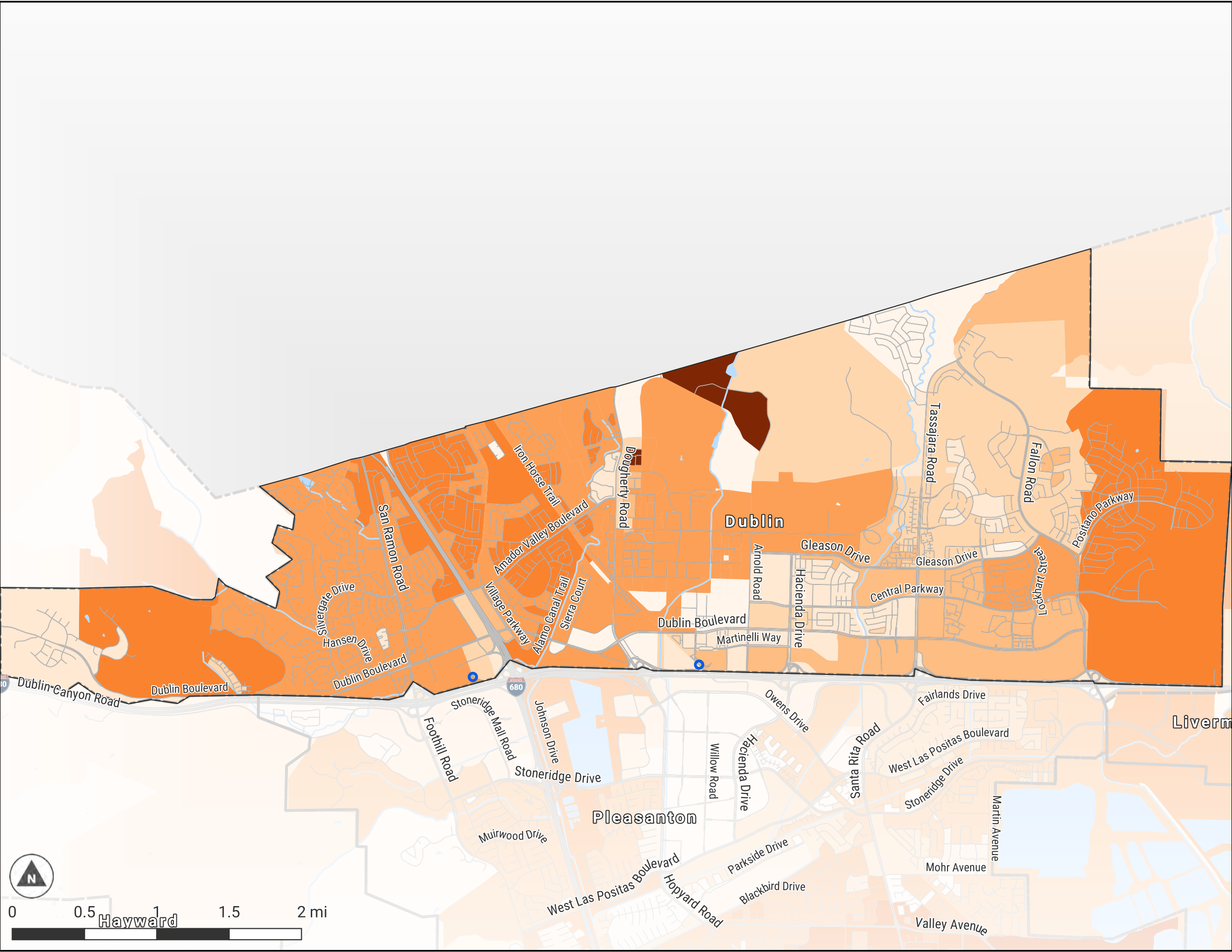


Other

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Alameda CTC Countywide
Active Transportation Plan





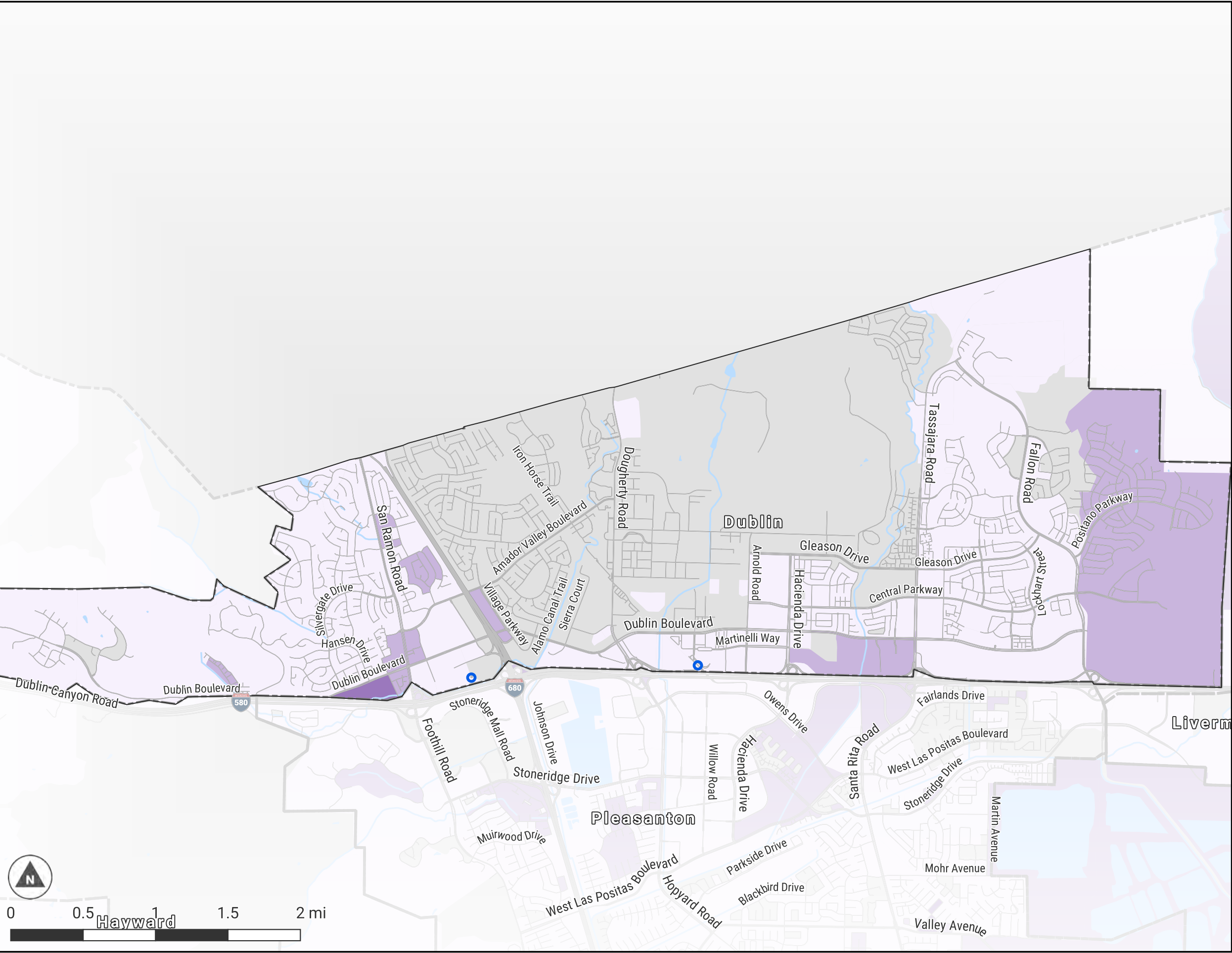
Changes in BNA Scores
Dublin

Changes in BNA Scores

- 80 +
- 60 - 80
- 40 - 60
- 20 - 40
- 0 - 20

Other

- BART Station
- Amtrak Station
- BART Lines



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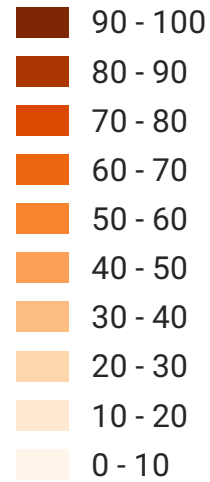
Alameda CTC Countywide
Active Transportation Plan



Existing BNA Scores

Emeryville

Existing BNA Scores

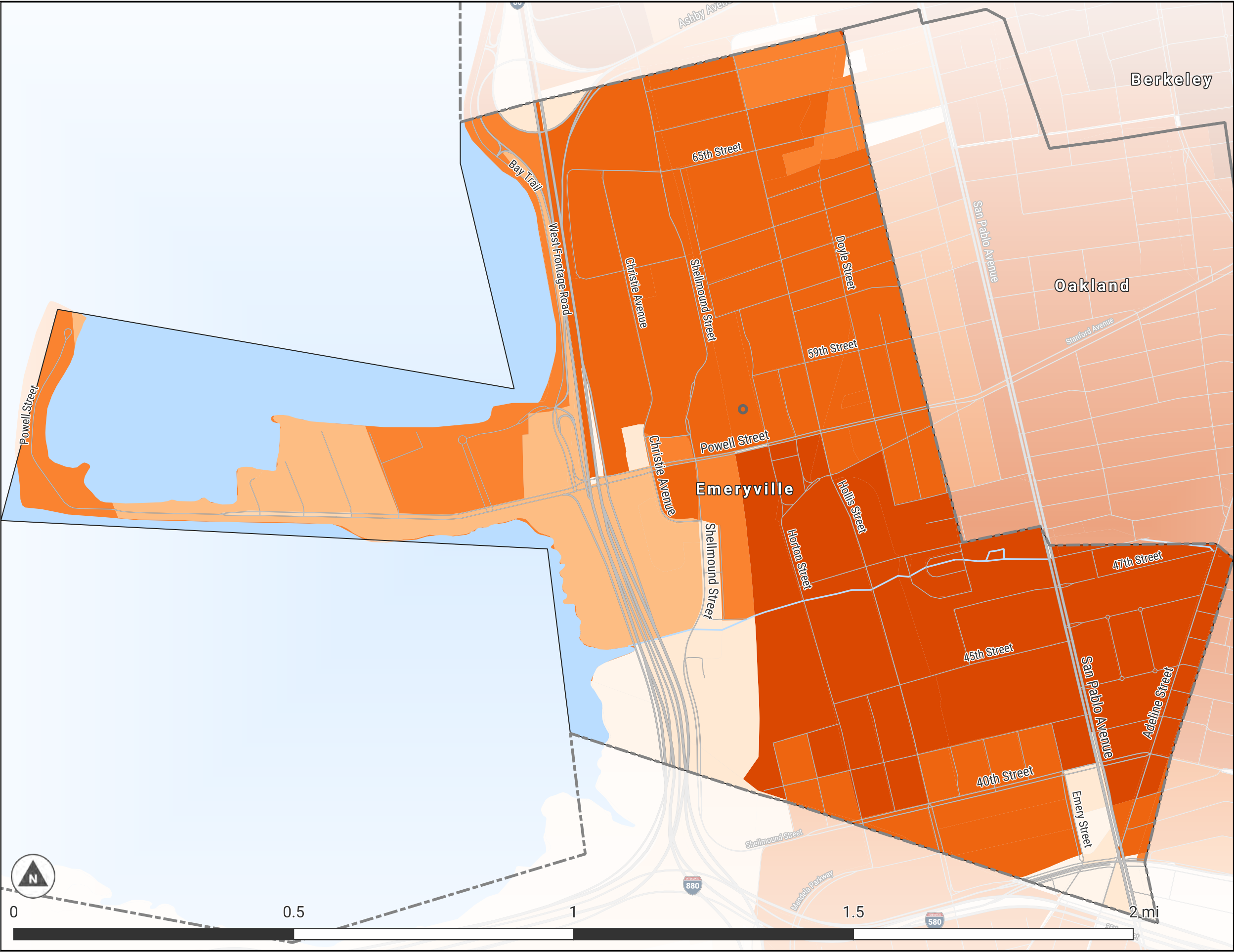


Other

- BART Station
- Amtrak Station
- BART Lines

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Alameda CTC Countywide
Active Transportation Plan

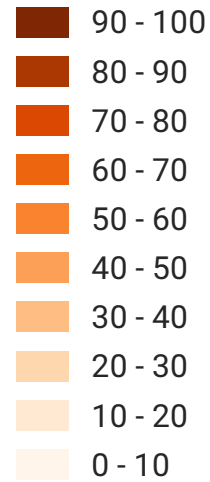




Planned BNA Scores

Emeryville

Planned BNA Scores

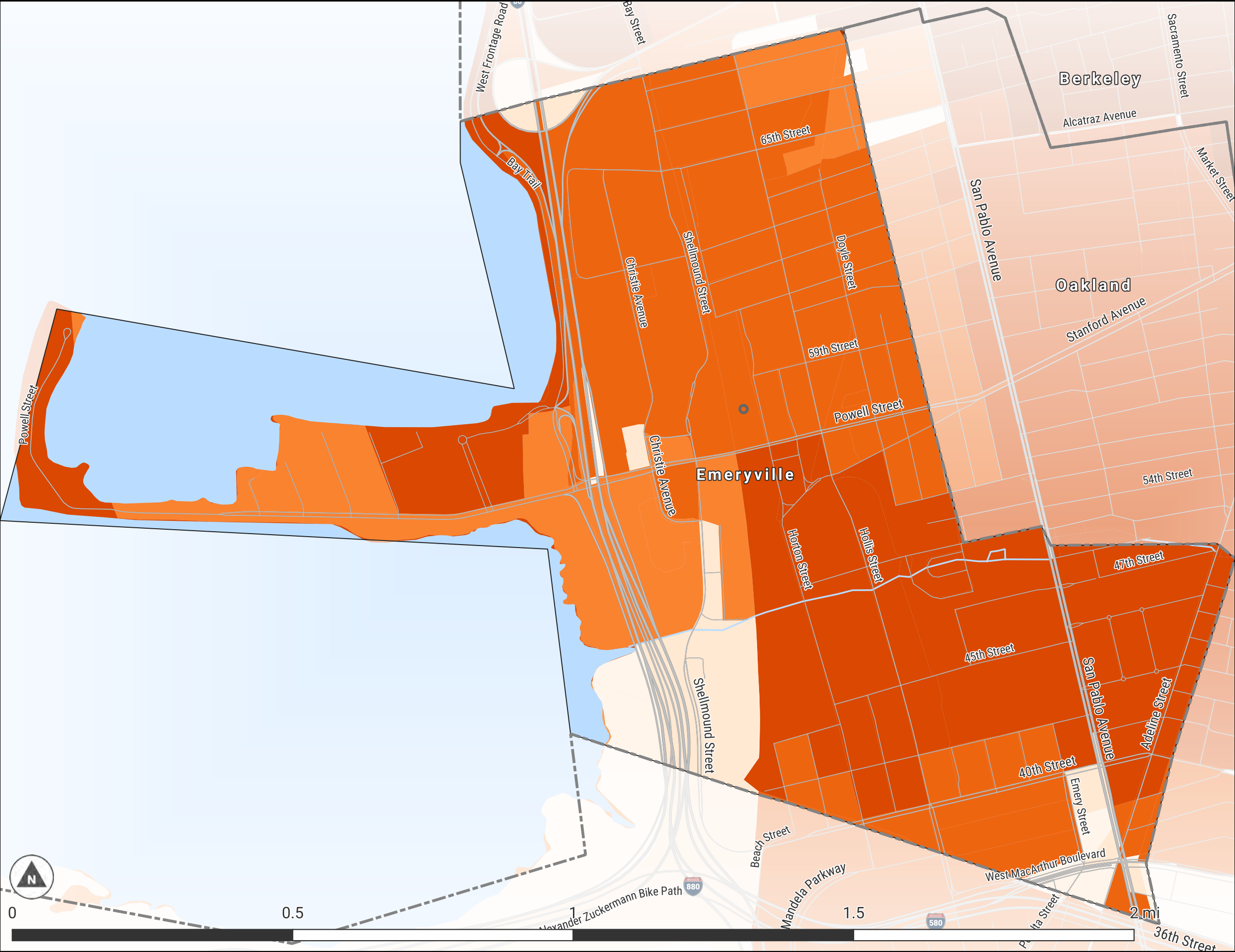


Other

- BART Station
- Amtrak Station
- BART Lines

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Alameda CTC Countywide Active Transportation Plan





Changes in BNA Scores
Emeryville

Changes in BNA Scores

- 80 +
- 60 - 80
- 40 - 60
- 20 - 40
- 0 - 20

Other

- BART Station
- Amtrak Station
- BART Lines

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Alameda CTC Countywide
Active Transportation Plan

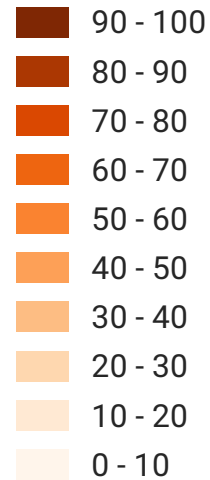




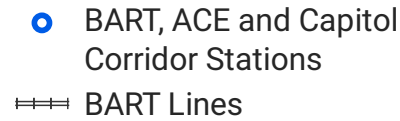
Existing BNA Scores

Fremont

Existing BNA Scores

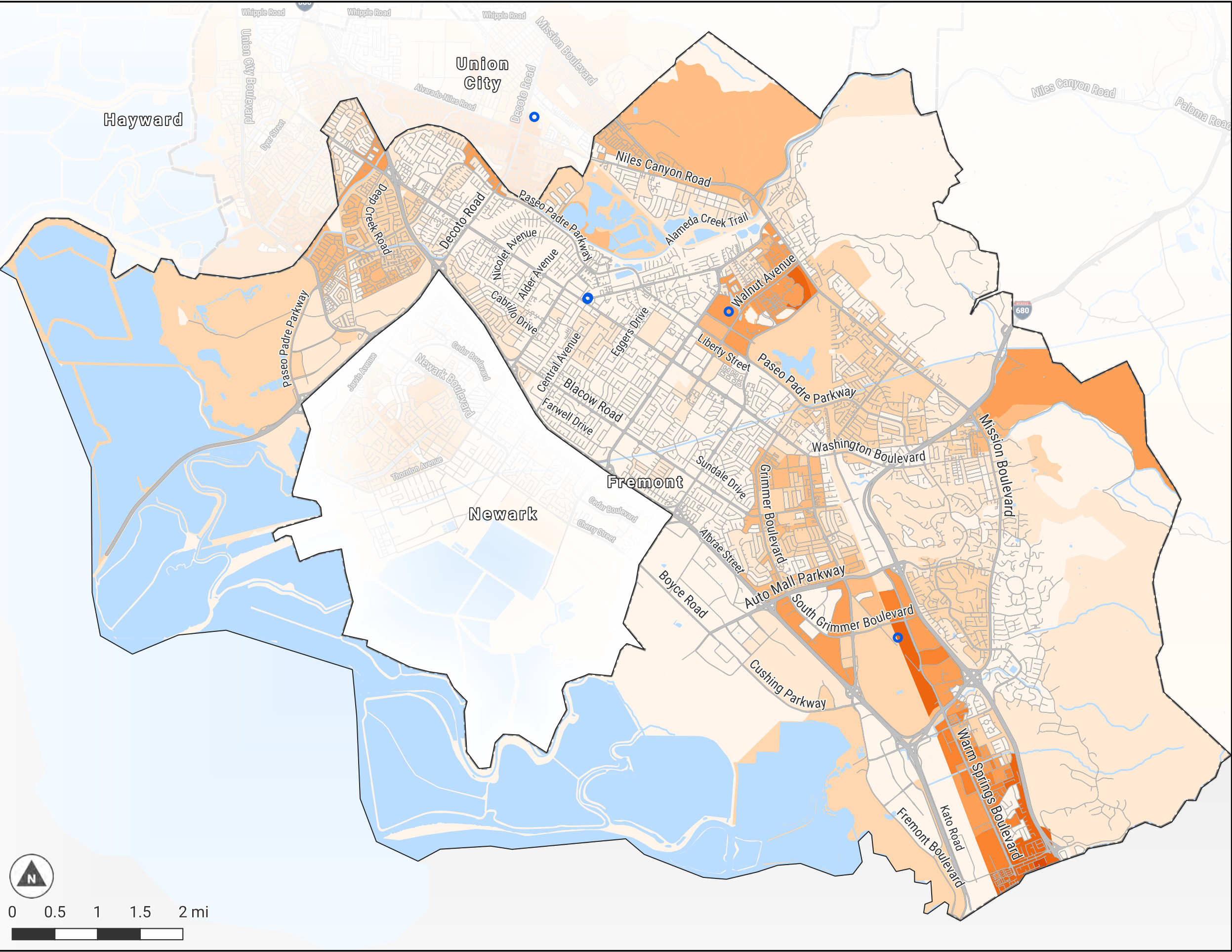


Other



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Alameda CTC Countywide
Active Transportation Plan

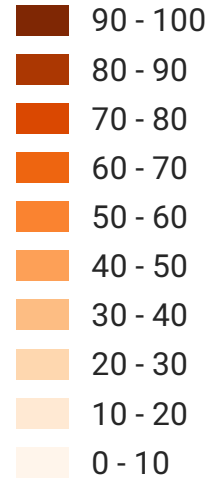




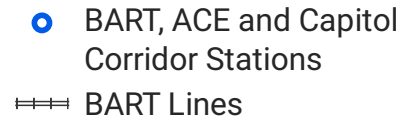
Planned BNA Scores

Fremont

Planned BNA Scores

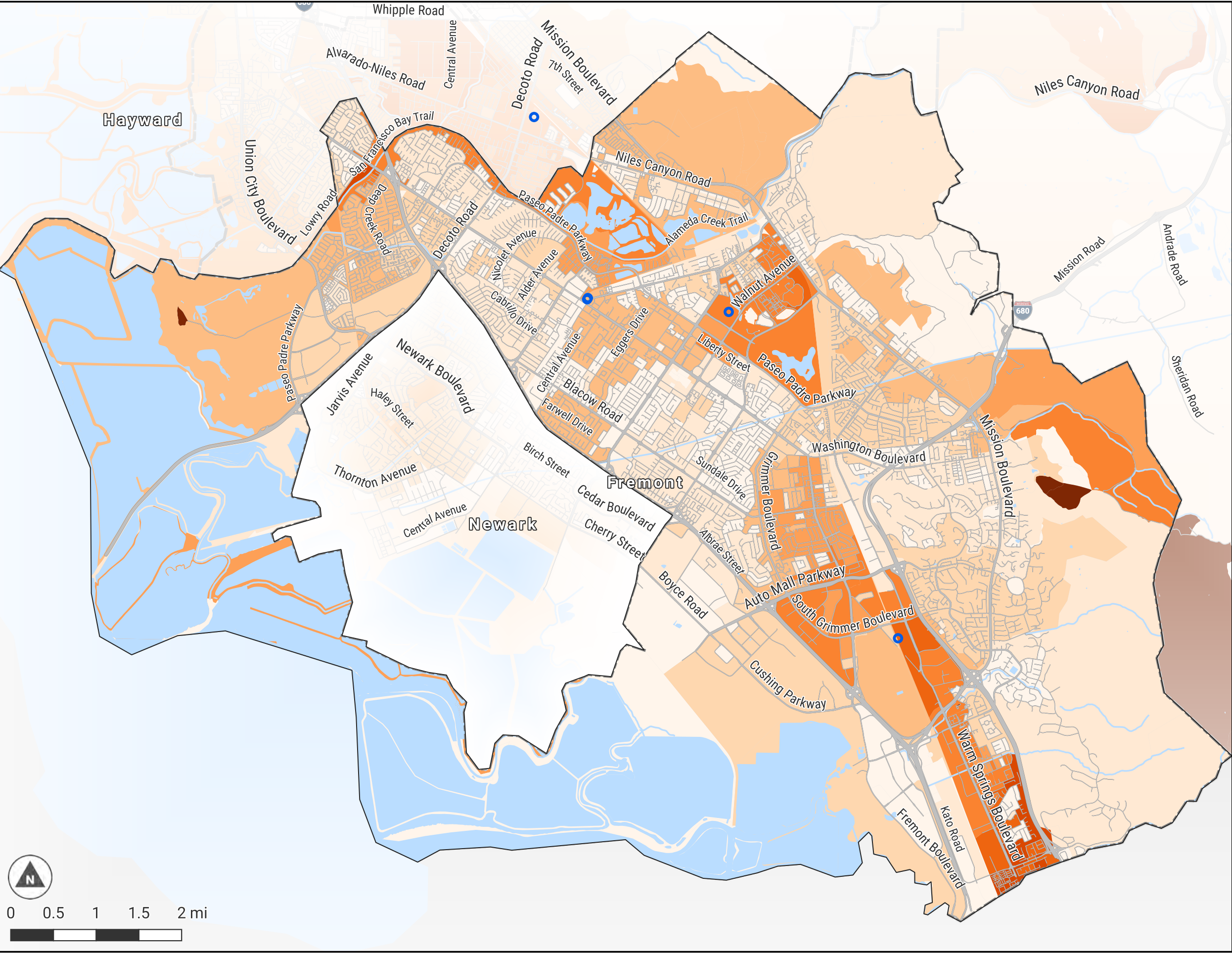


Other



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Alameda CTC Countywide Active Transportation Plan





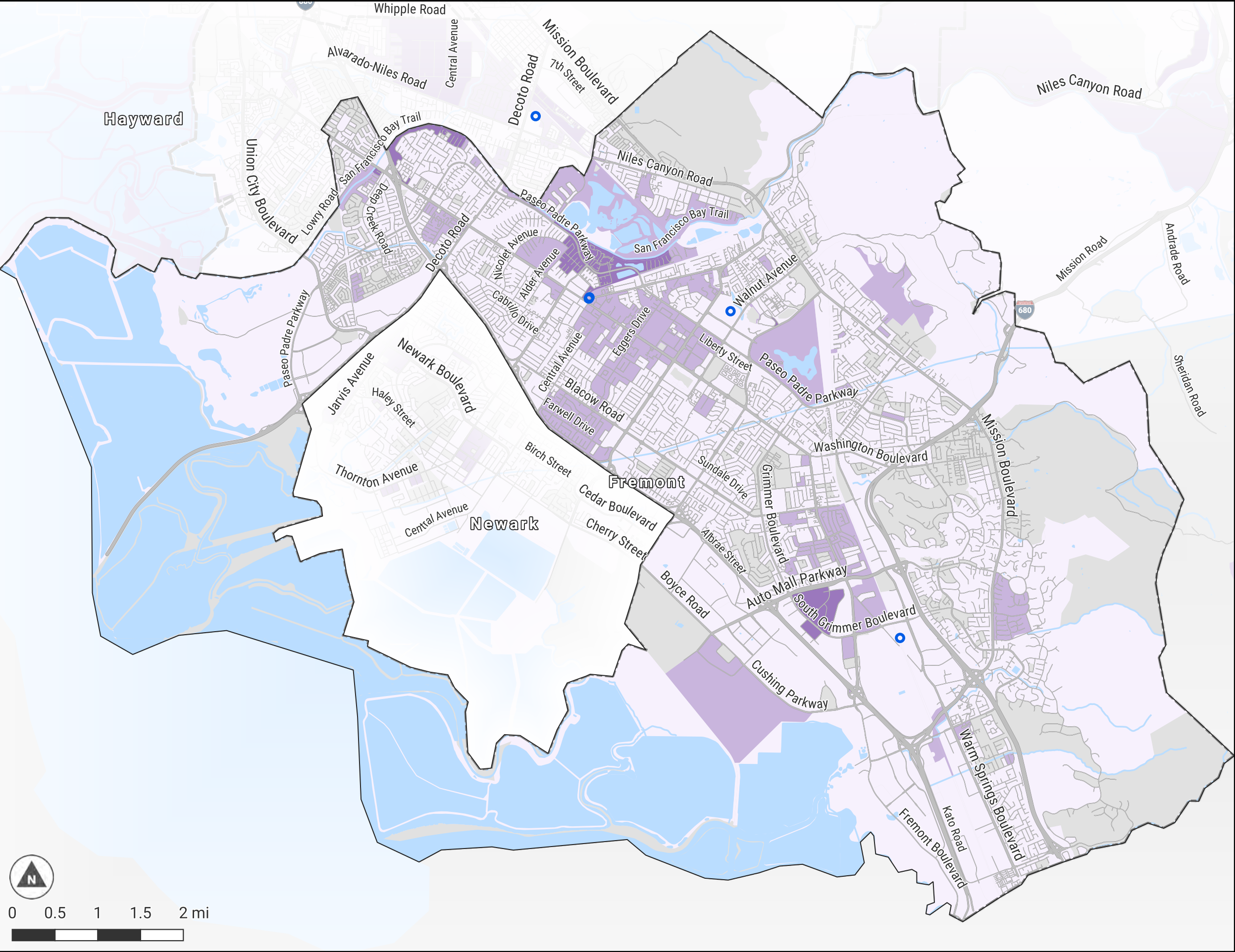
Changes in BNA Scores
Fremont

Changes in BNA Scores

- 80 +
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Other

- BART, ACE and Capitol Corridor Stations
- BART Lines



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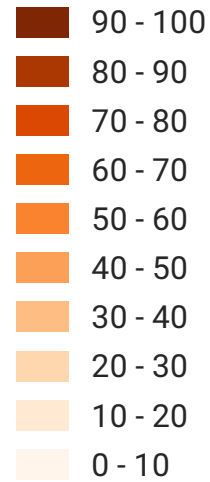
Alameda CTC Countywide
Active Transportation Plan



Existing BNA Scores

Hayward

Existing BNA Scores

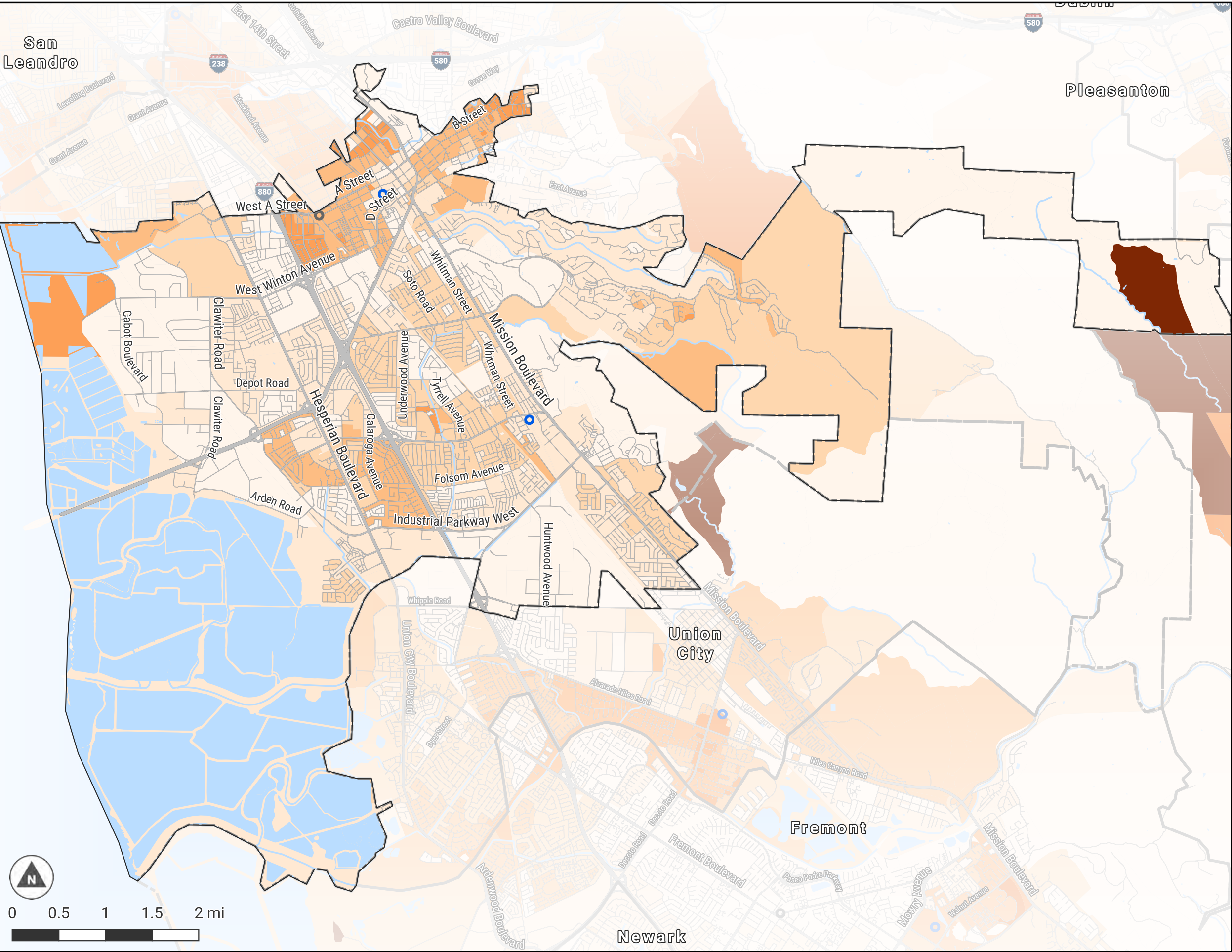


Other

- BART Station
- Amtrak Station
- BART Lines

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Alameda CTC Countywide
Active Transportation Plan

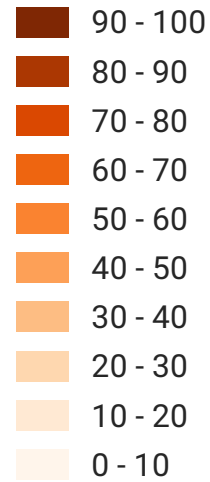




Planned BNA Scores

Hayward

Planned BNA Scores

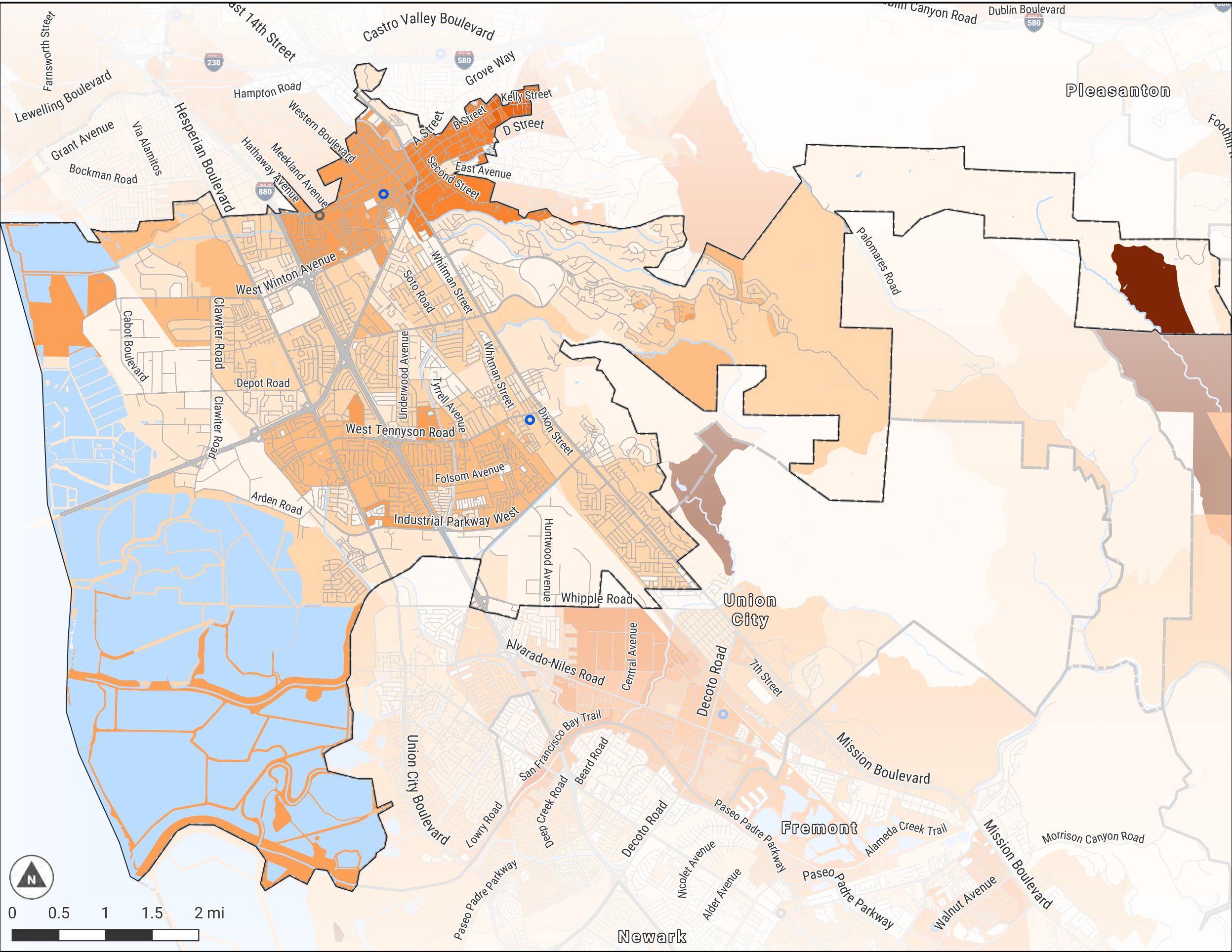


Other

- BART Station
- Amtrak Station
- === BART Lines

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Alameda CTC Countywide
Active Transportation Plan





Changes in BNA Scores
Hayward

Changes in BNA Scores

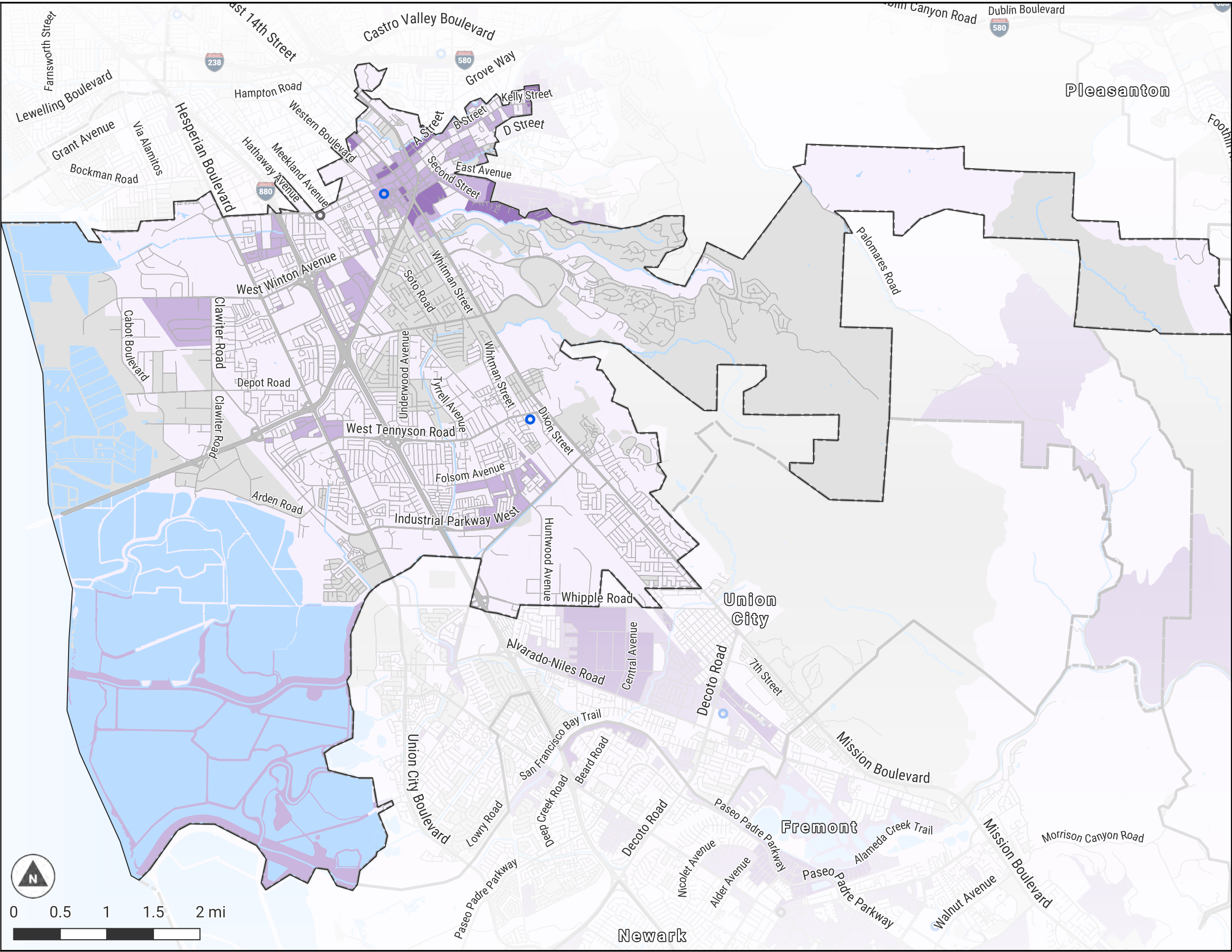
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Other

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- BART Lines

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Alameda CTC Countywide
Active Transportation Plan

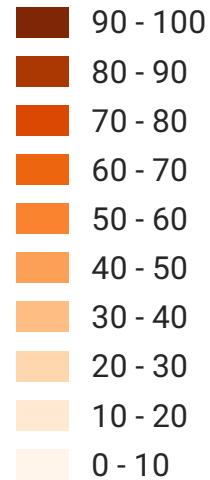




Existing BNA Scores

Livermore

Existing BNA Scores

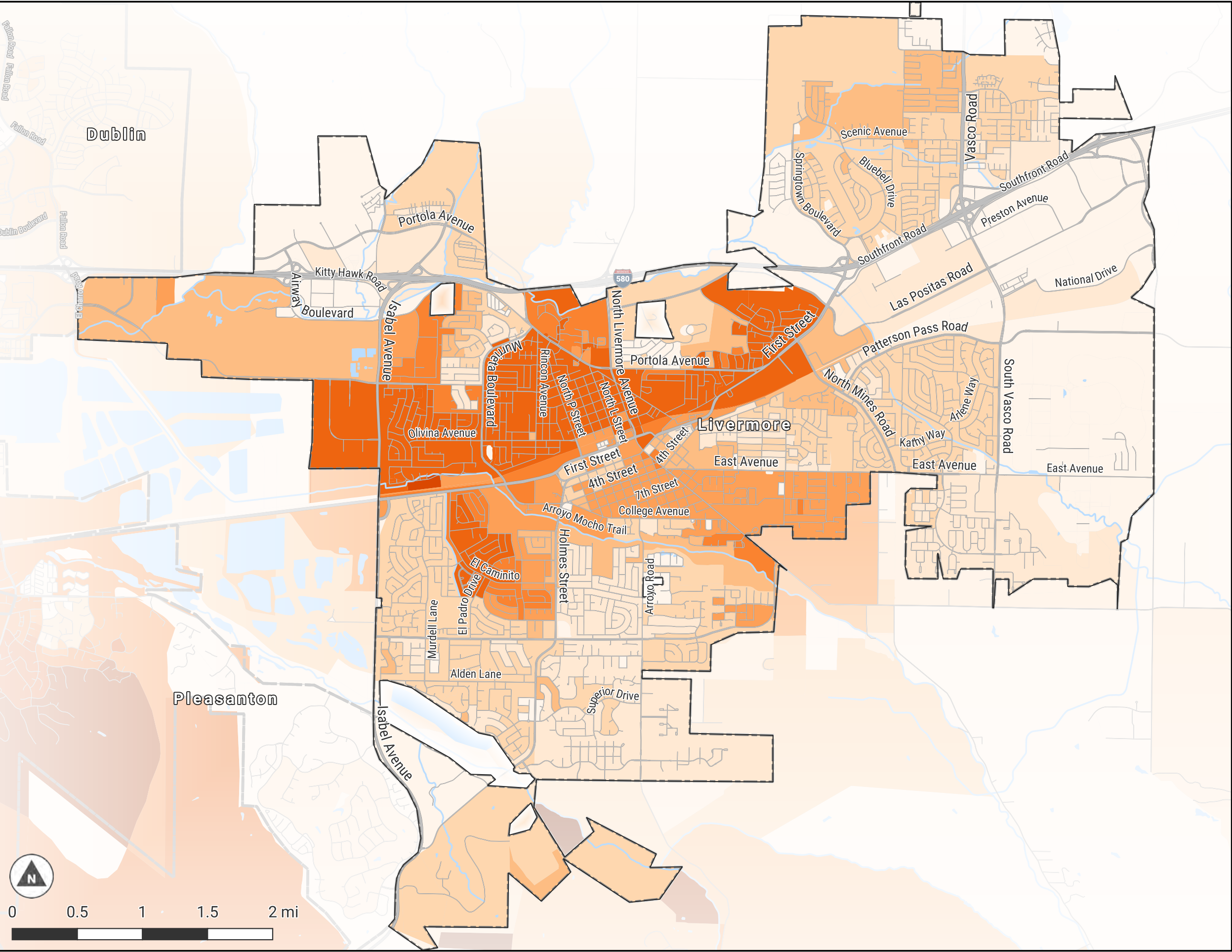


Other

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- BART Lines

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Alameda CTC Countywide
Active Transportation Plan

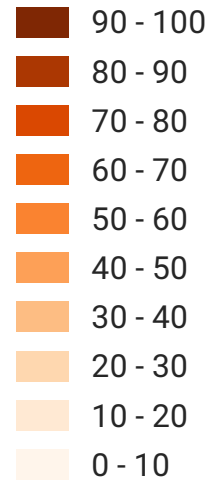




Planned BNA Scores

Livermore

Planned BNA Scores

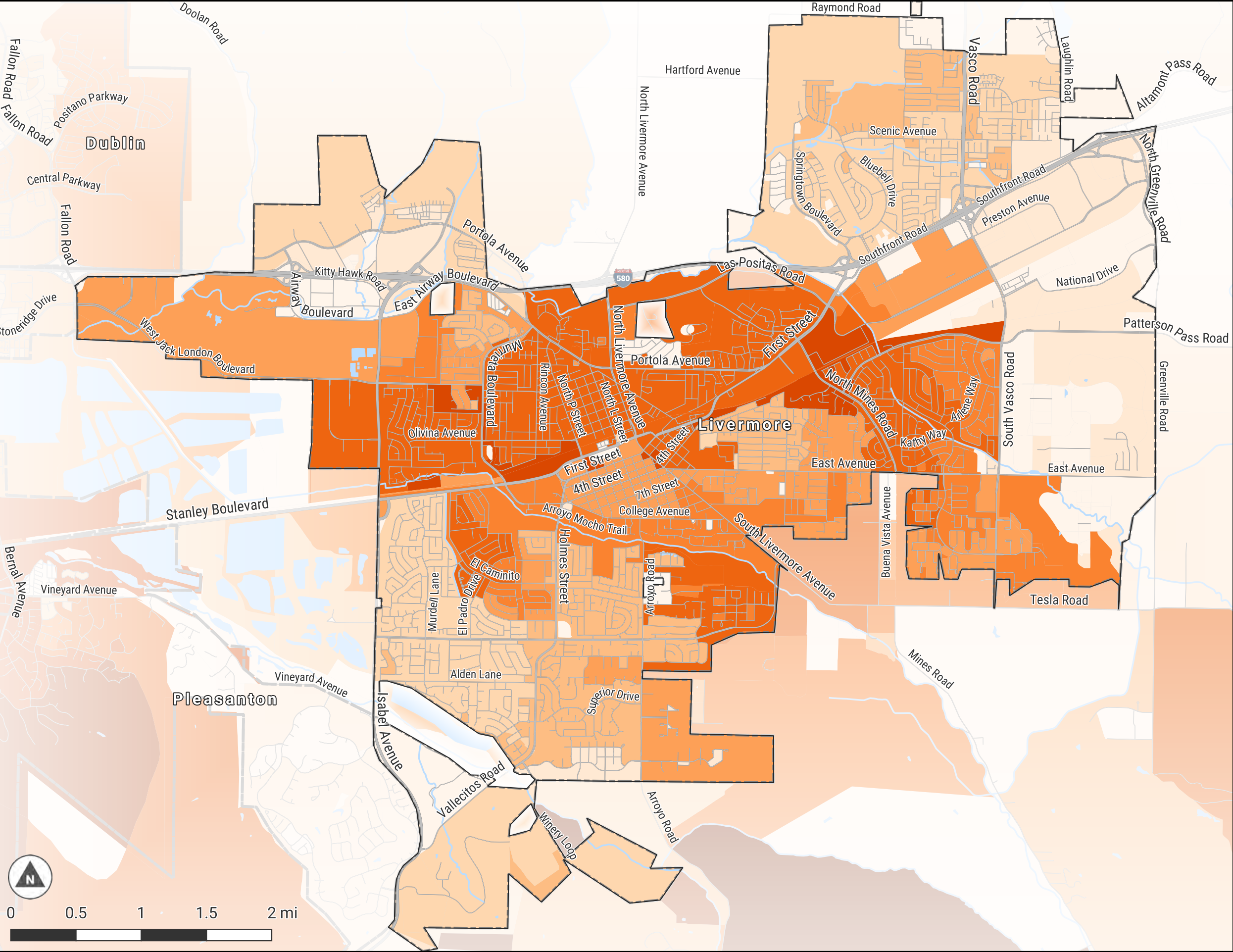


Other

- BART Station
- Amtrak Station
- ══ BART Lines

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Alameda CTC Countywide
Active Transportation Plan





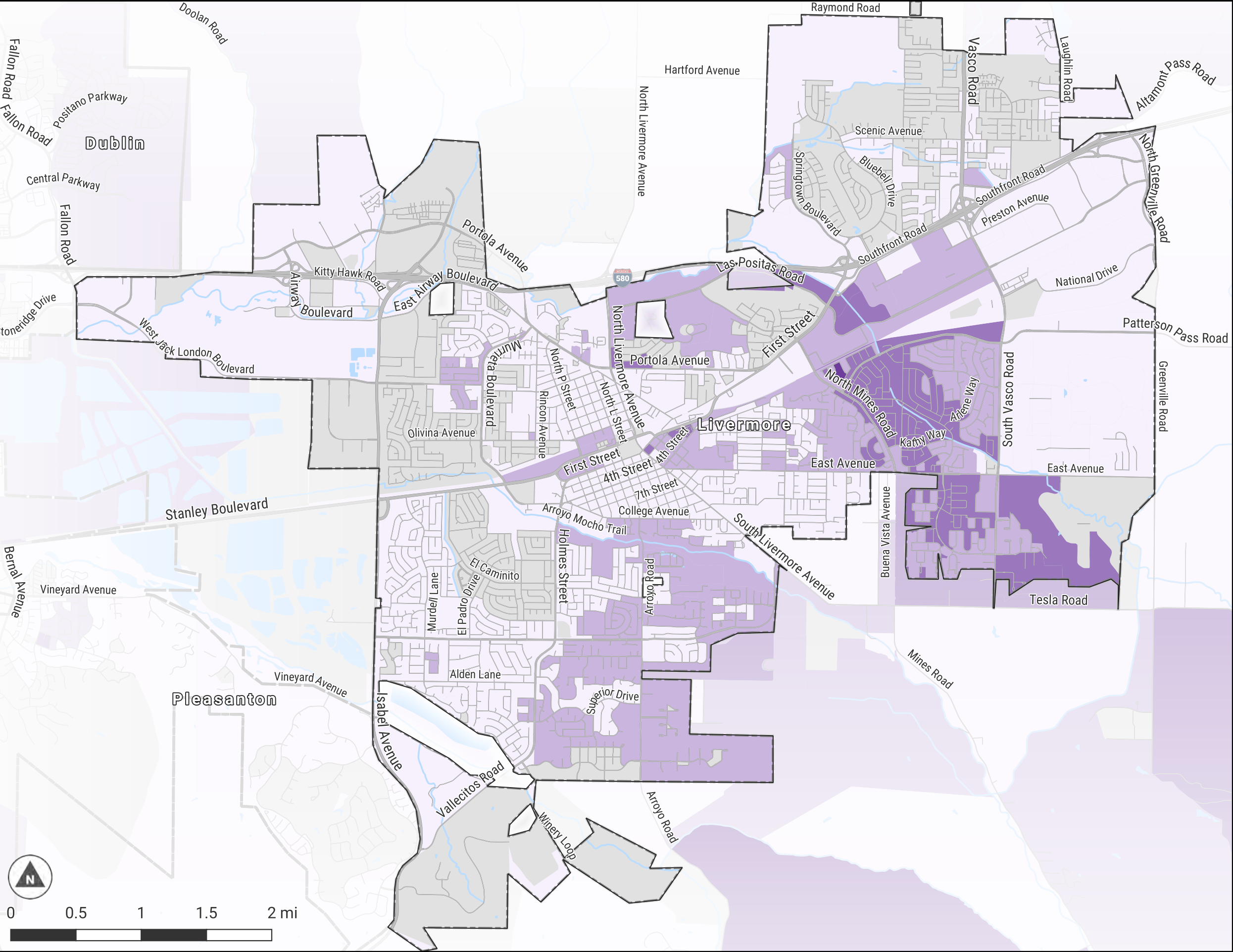
Changes in BNA Scores
Livermore

Changes in BNA Scores

- 80 +
- 60 - 80
- 40 - 60
- 20 - 40
- 0 - 20

Other

- BART Station
- Amtrak Station
- BART Lines



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Alameda CTC Countywide
Active Transportation Plan





Existing BNA Scores

Newark

Existing BNA Scores

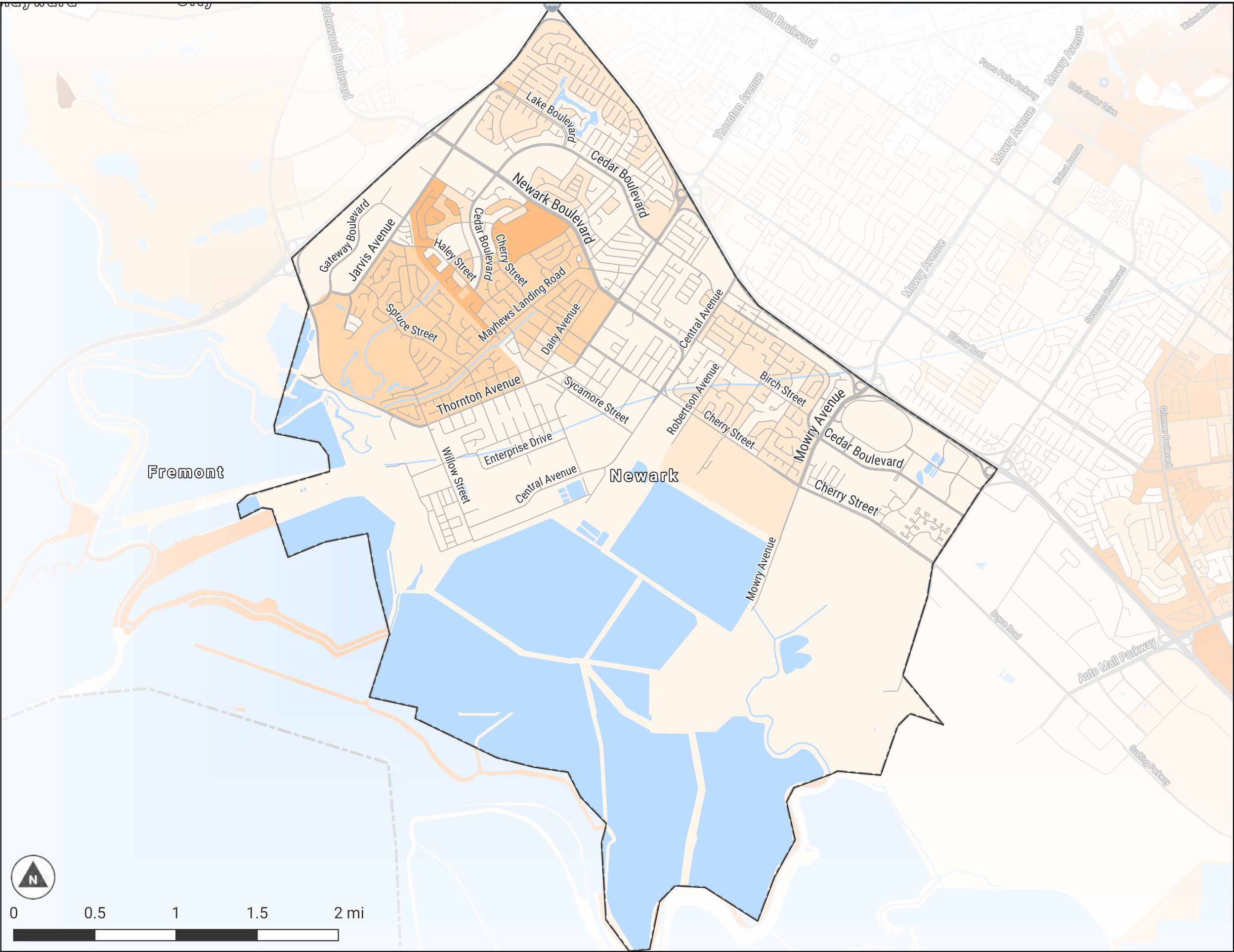
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Other

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Active Transportation Plan

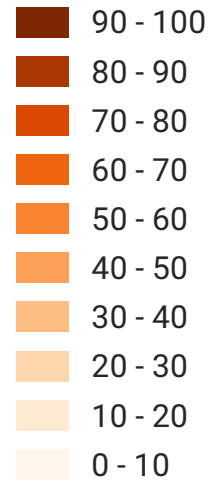




Planned BNA Scores

Newark

Planned BNA Scores

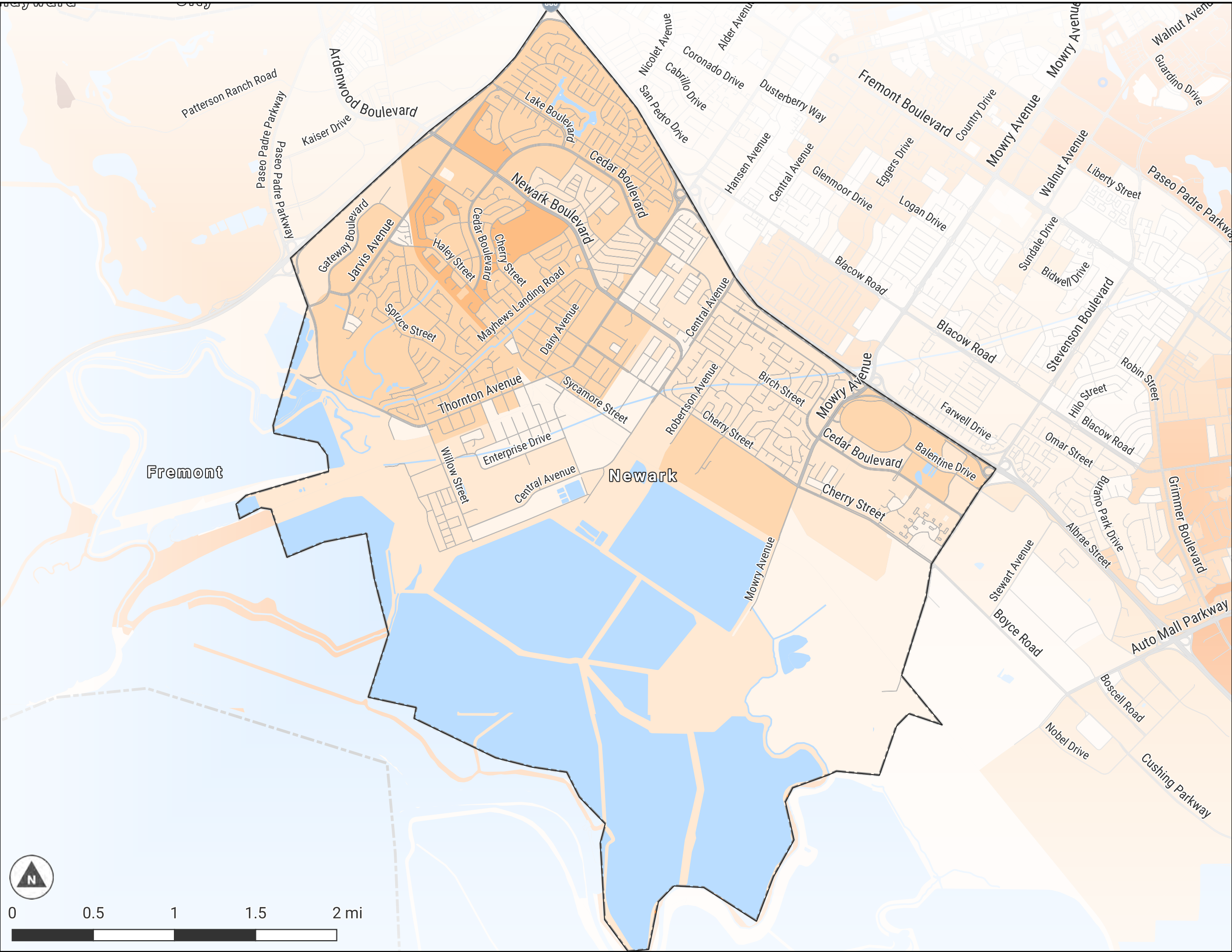


Other

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Alameda CTC Countywide
Active Transportation Plan





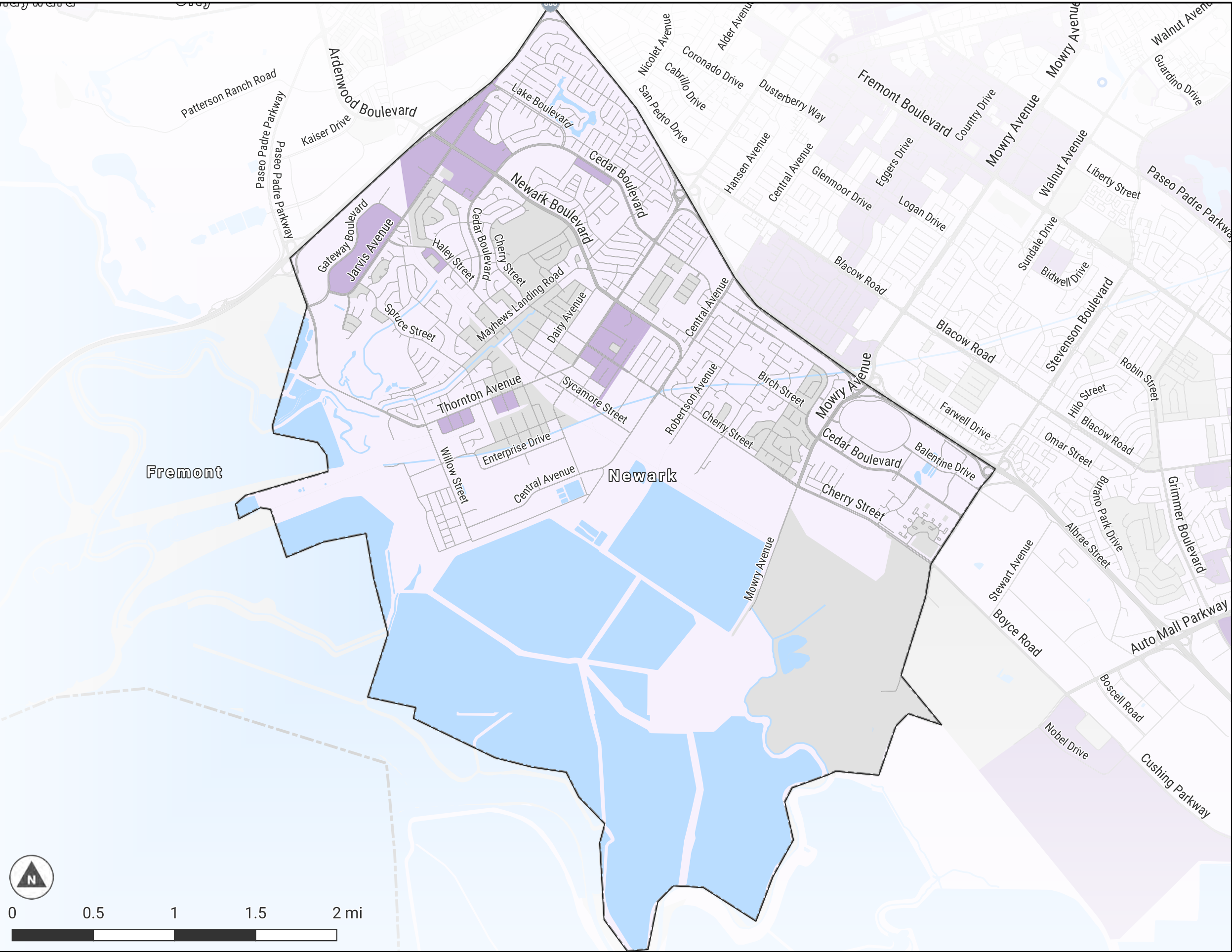
Changes in BNA Scores
Newark

Changes in BNA Scores

- 80 +
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Other

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- Amtrak Station
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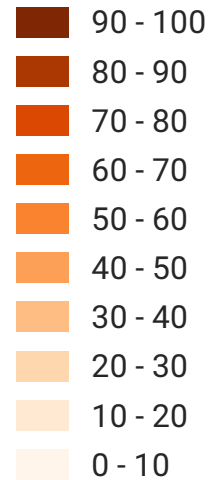
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Existing BNA Scores

Oakland

Existing BNA Scores

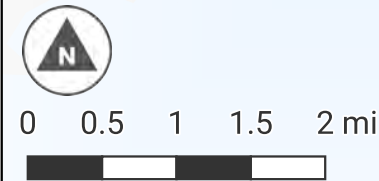
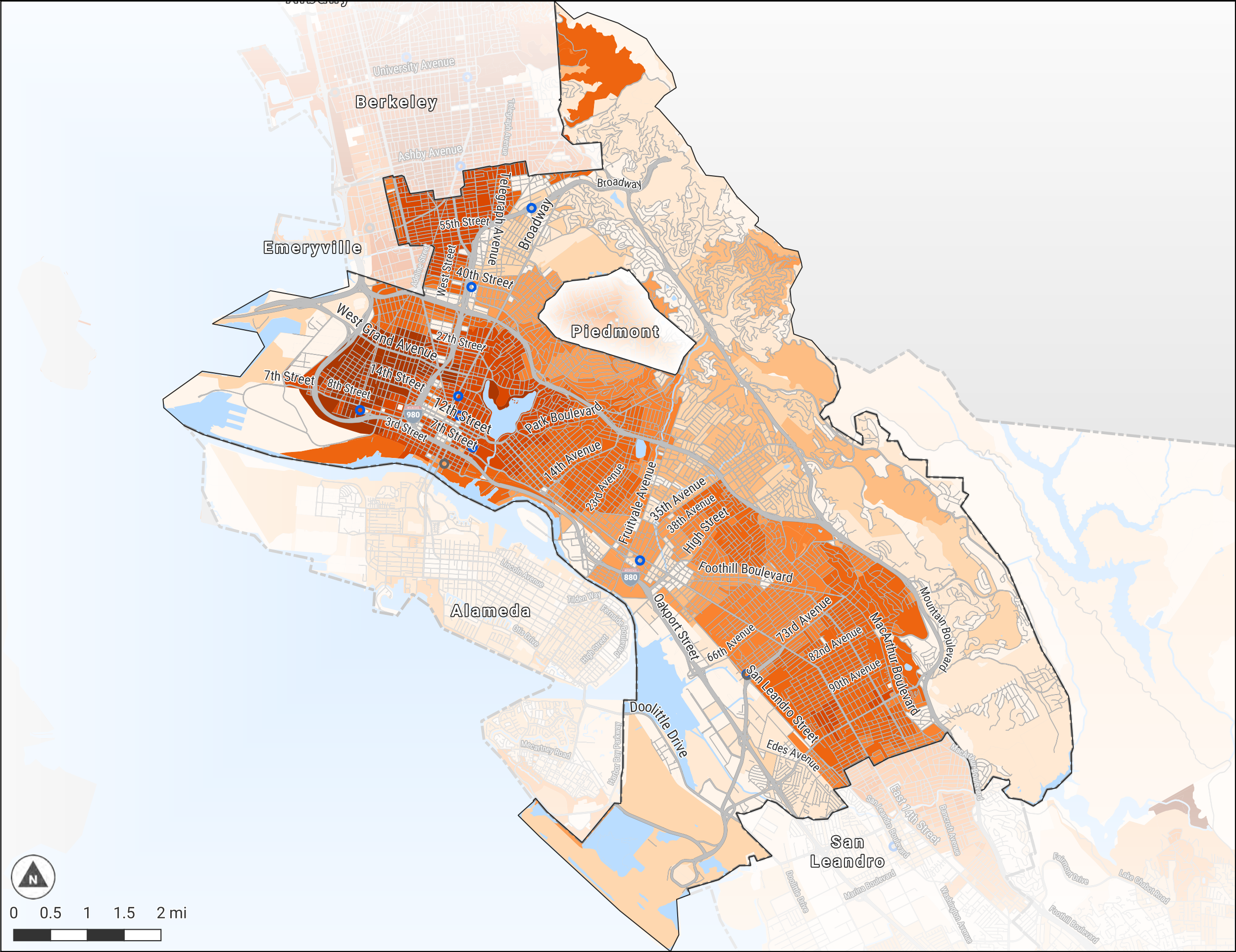


Other

- BART Station
- Amtrak Station
- ══ BART Lines

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Alameda CTC Countywide
Active Transportation Plan

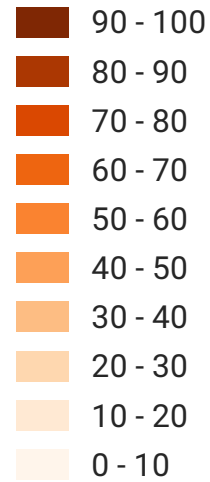




Planned BNA Scores

Oakland

Planned BNA Scores

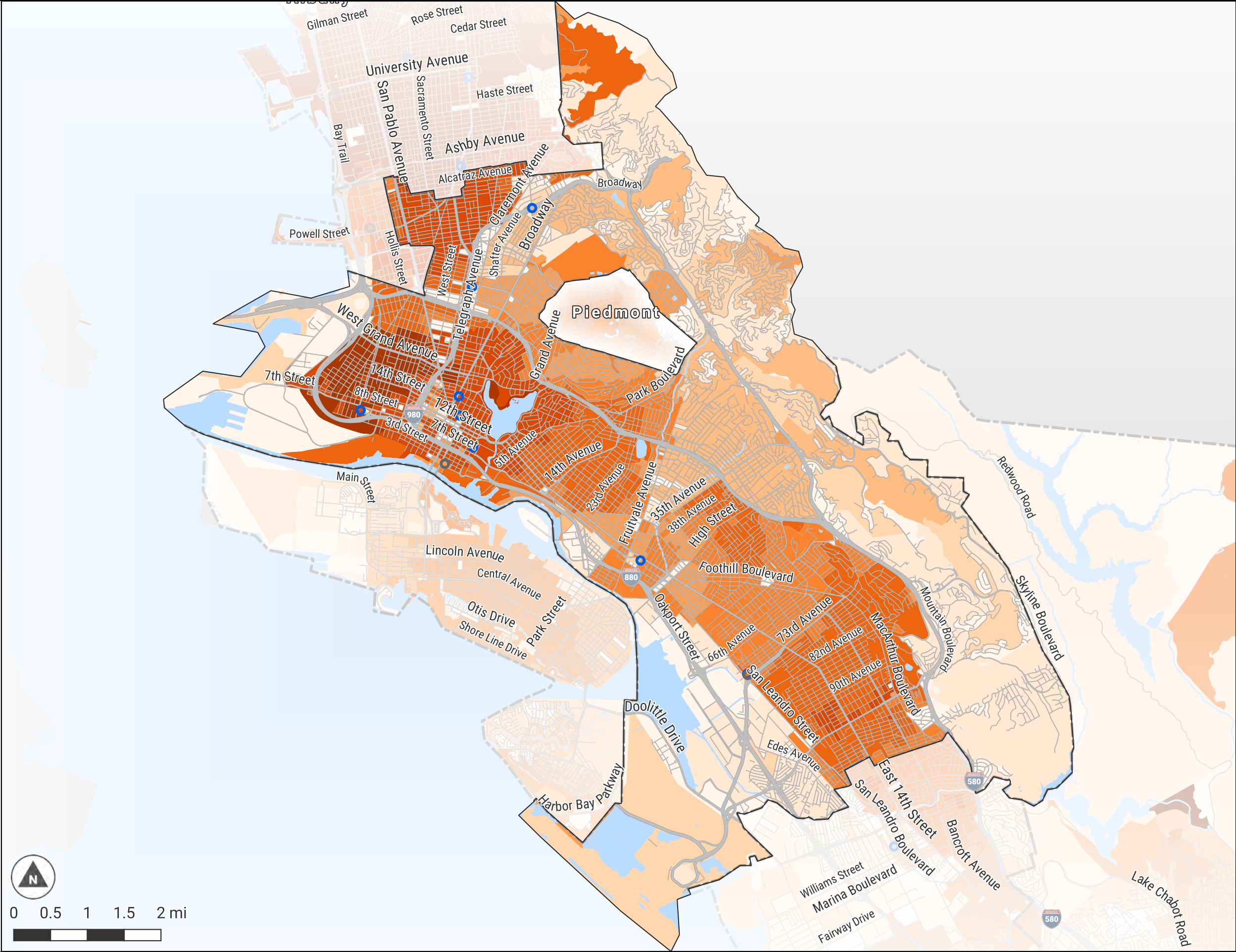


Other

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Alameda CTC Countywide
Active Transportation Plan





Changes in BNA Scores
Oakland

Changes in BNA Scores

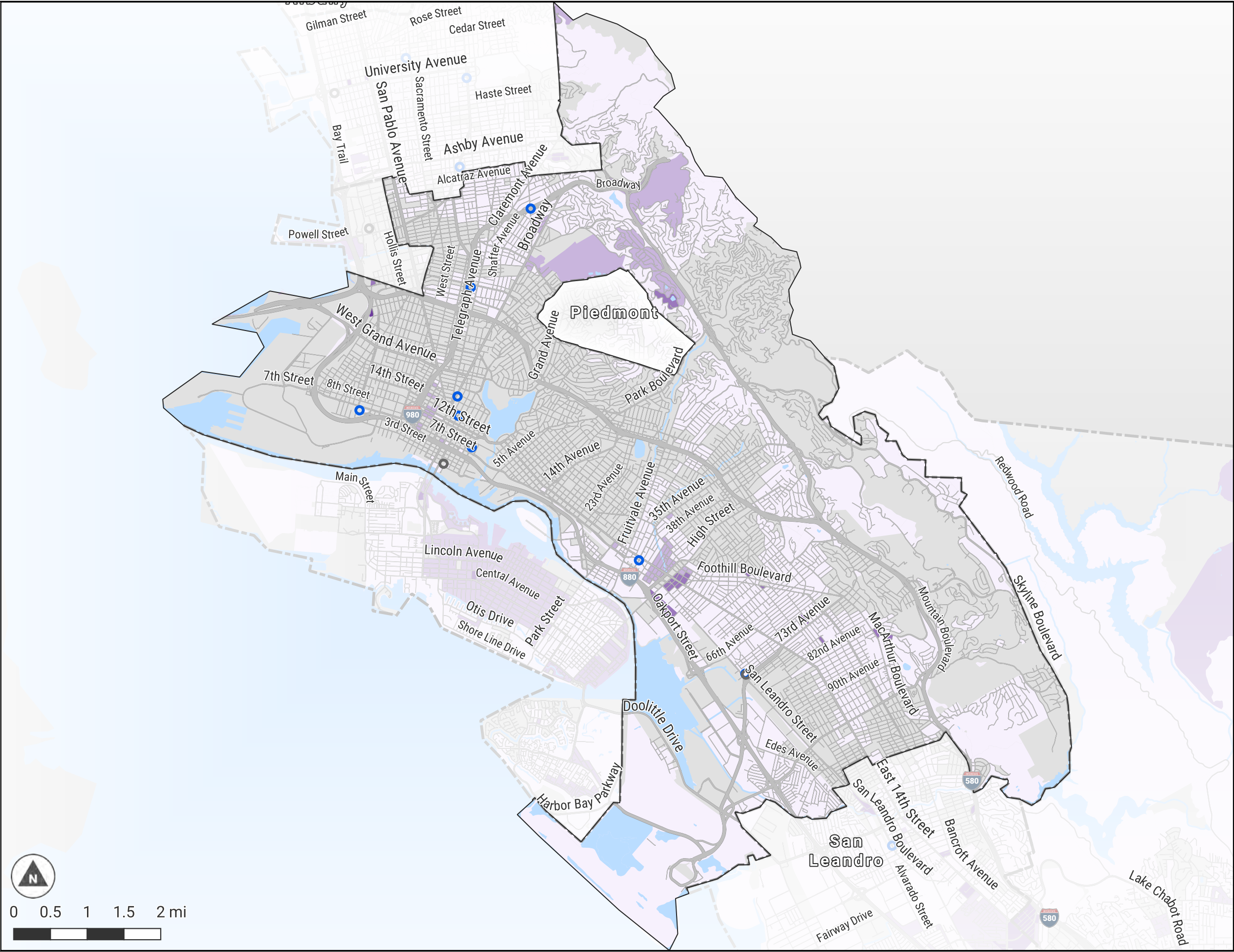
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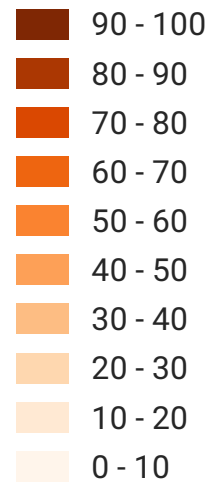




Existing BNA Scores

Piedmont

Existing BNA Scores

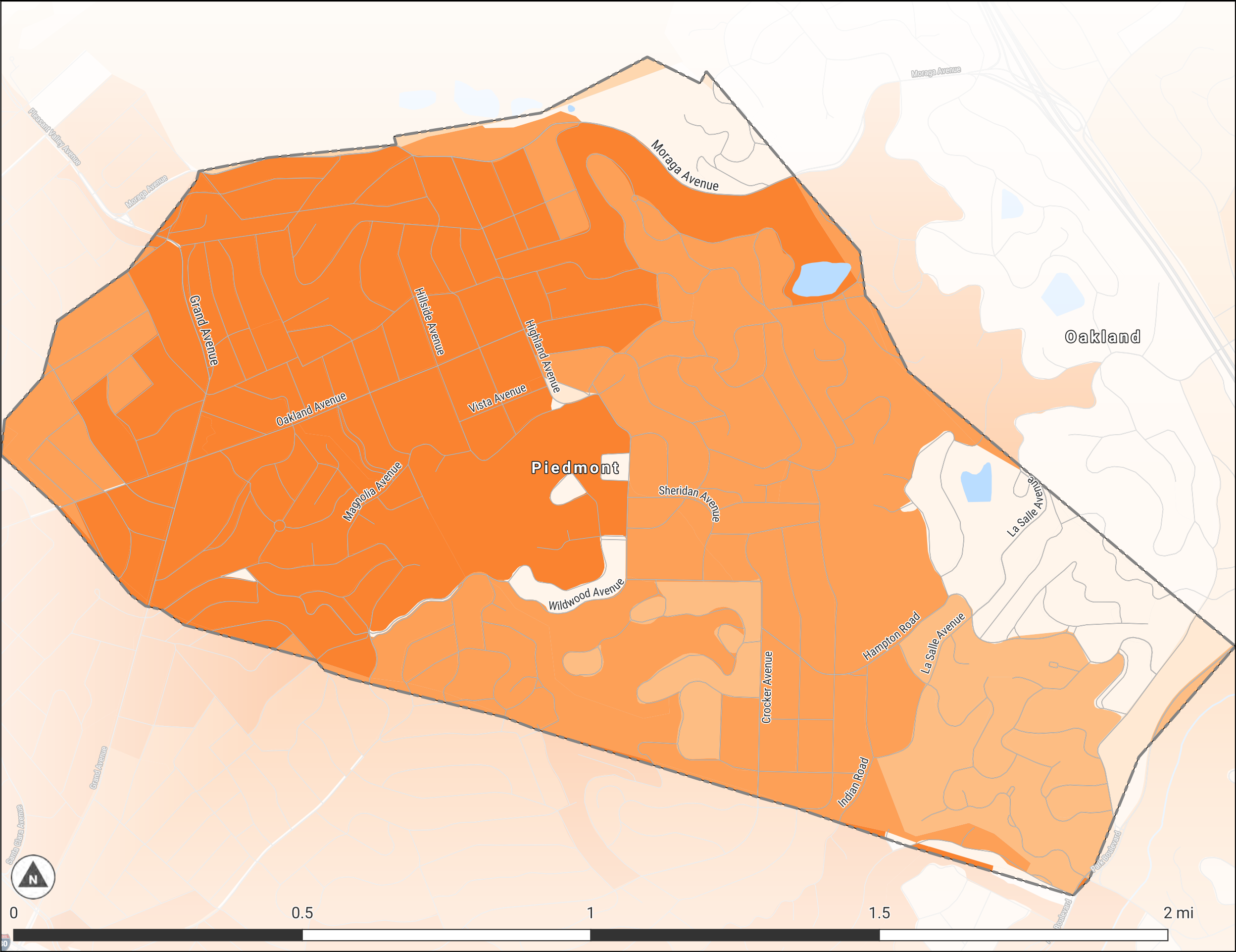


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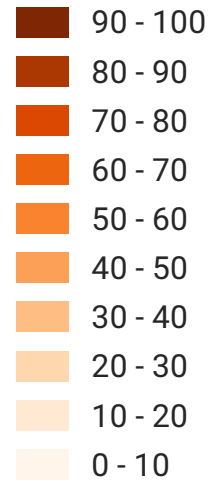




Planned BNA Scores

Piedmont

Planned BNA Scores

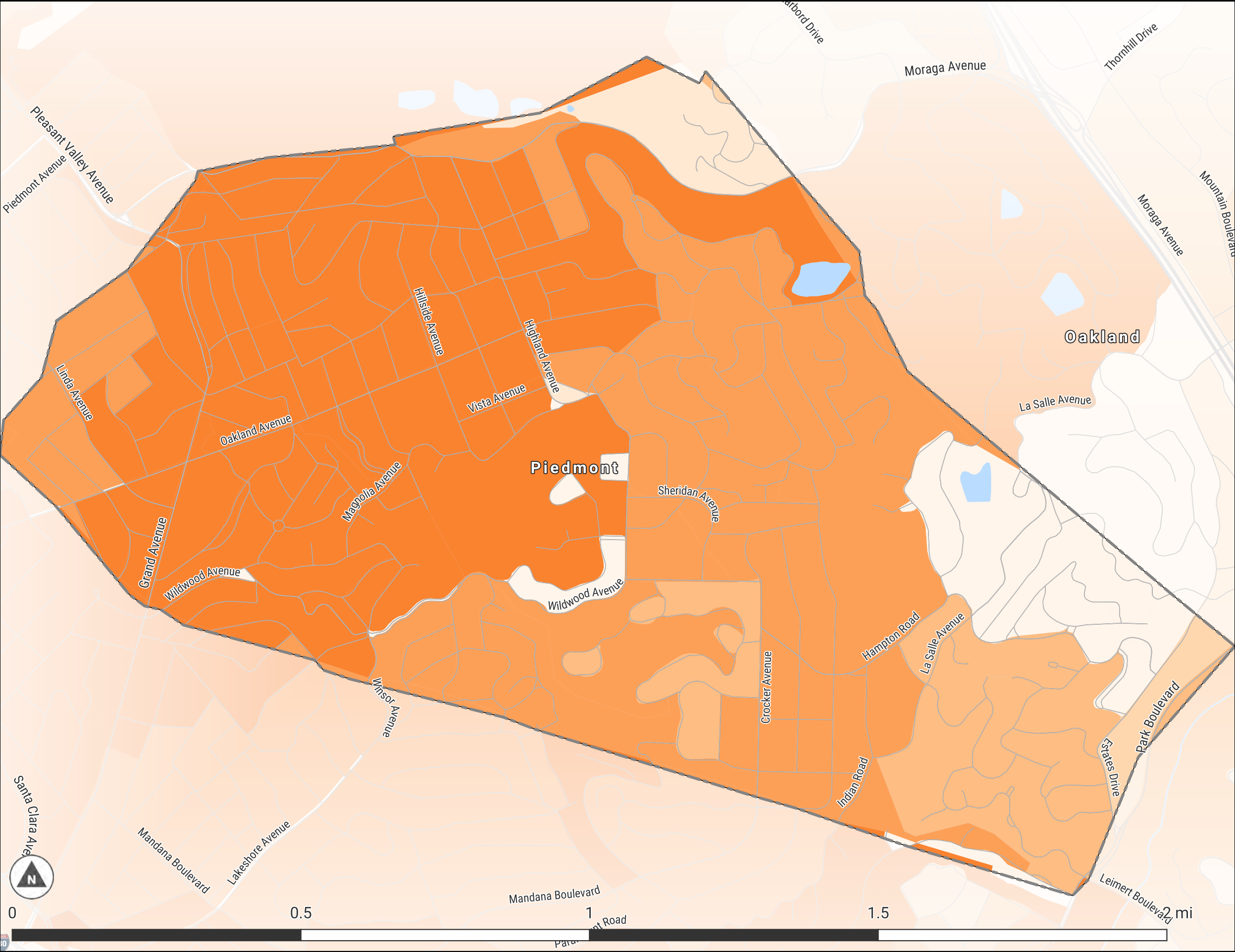


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Alameda CTC Countywide
Active Transportation Plan





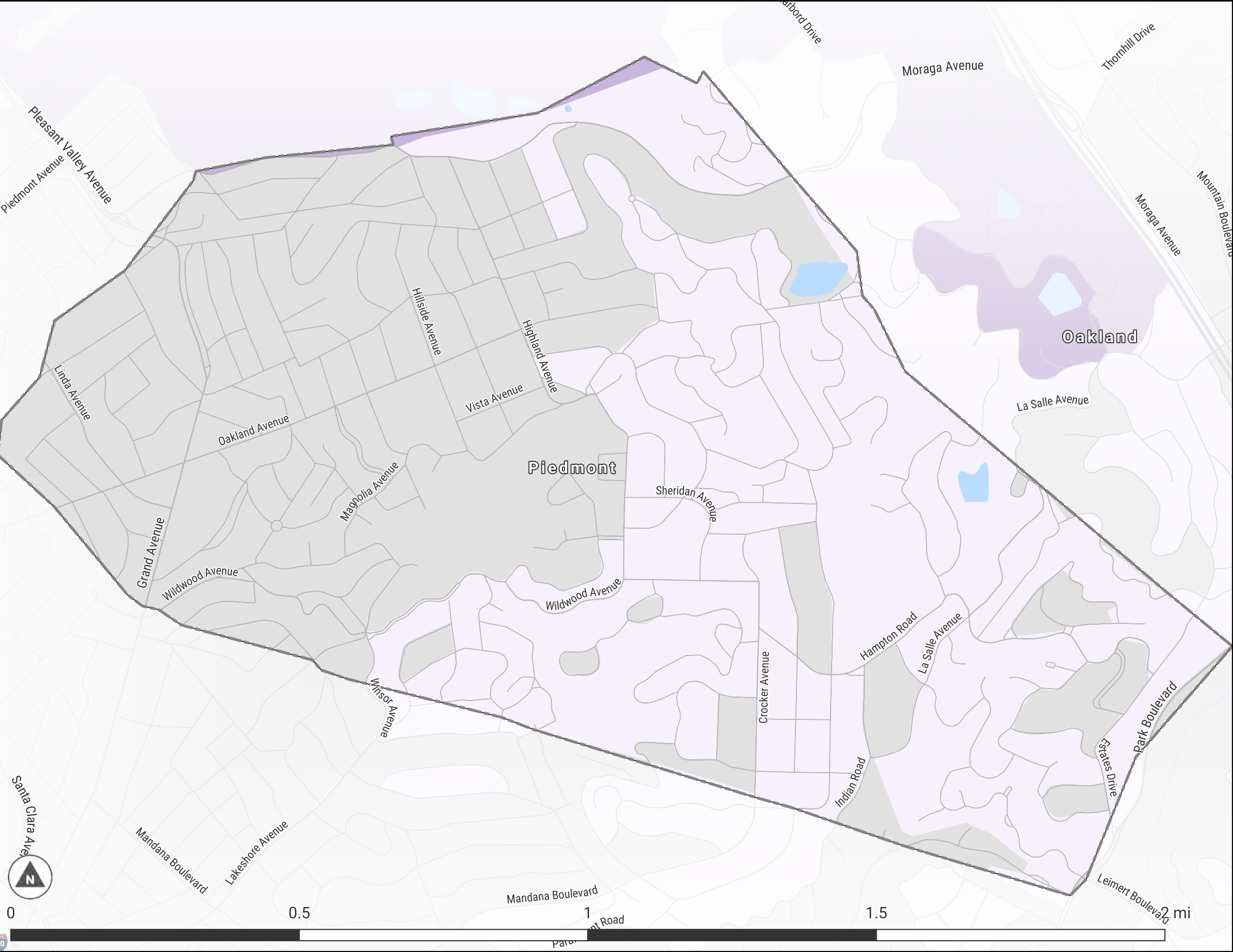
Changes in BNA Scores
Piedmont

Changes in BNA Scores

- 80 +
- 60 - 80
- 40 - 60
- 20 - 40
- 0 - 20

Other

- BART Station
- Amtrak Station
- BART Lines



Note: Bicycle facility data used for this analysis were those received from local staff, current as of March 2018.

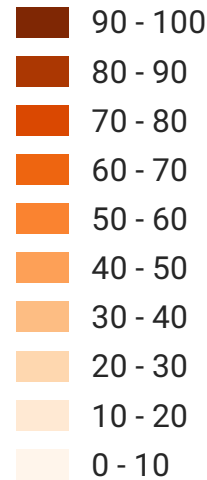
Alameda CTC Countywide
Active Transportation Plan



Existing BNA Scores

Pleasanton

Existing BNA Scores

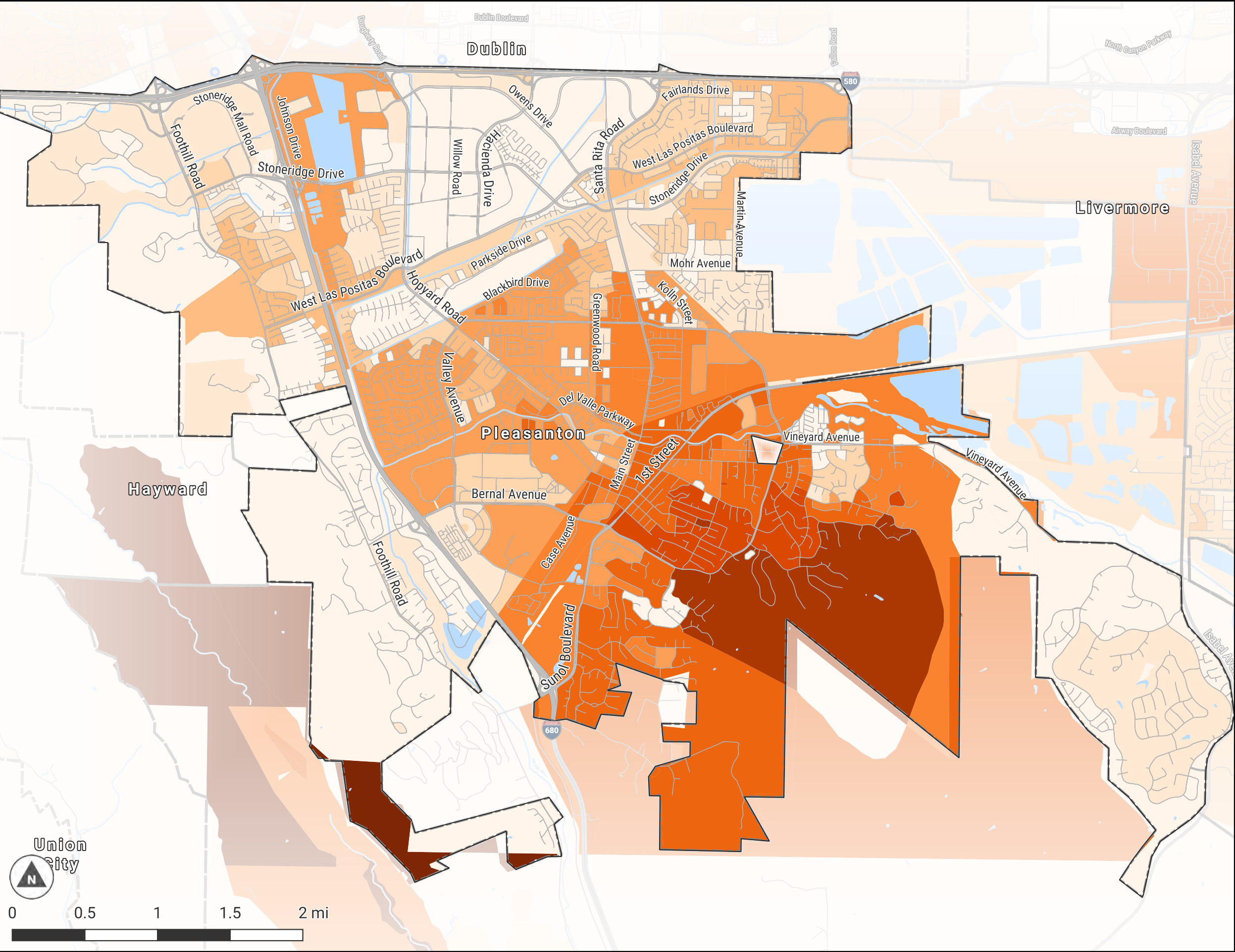


Other

- BART Station
- Amtrak Station
- BART Lines

Note: Bicycle facility data used for this analysis were those received from local staff, current as of March 2018.

Alameda CTC Countywide
Active Transportation Plan

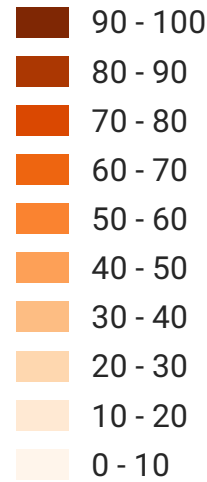




Planned BNA Scores

Pleasanton

Planned BNA Scores

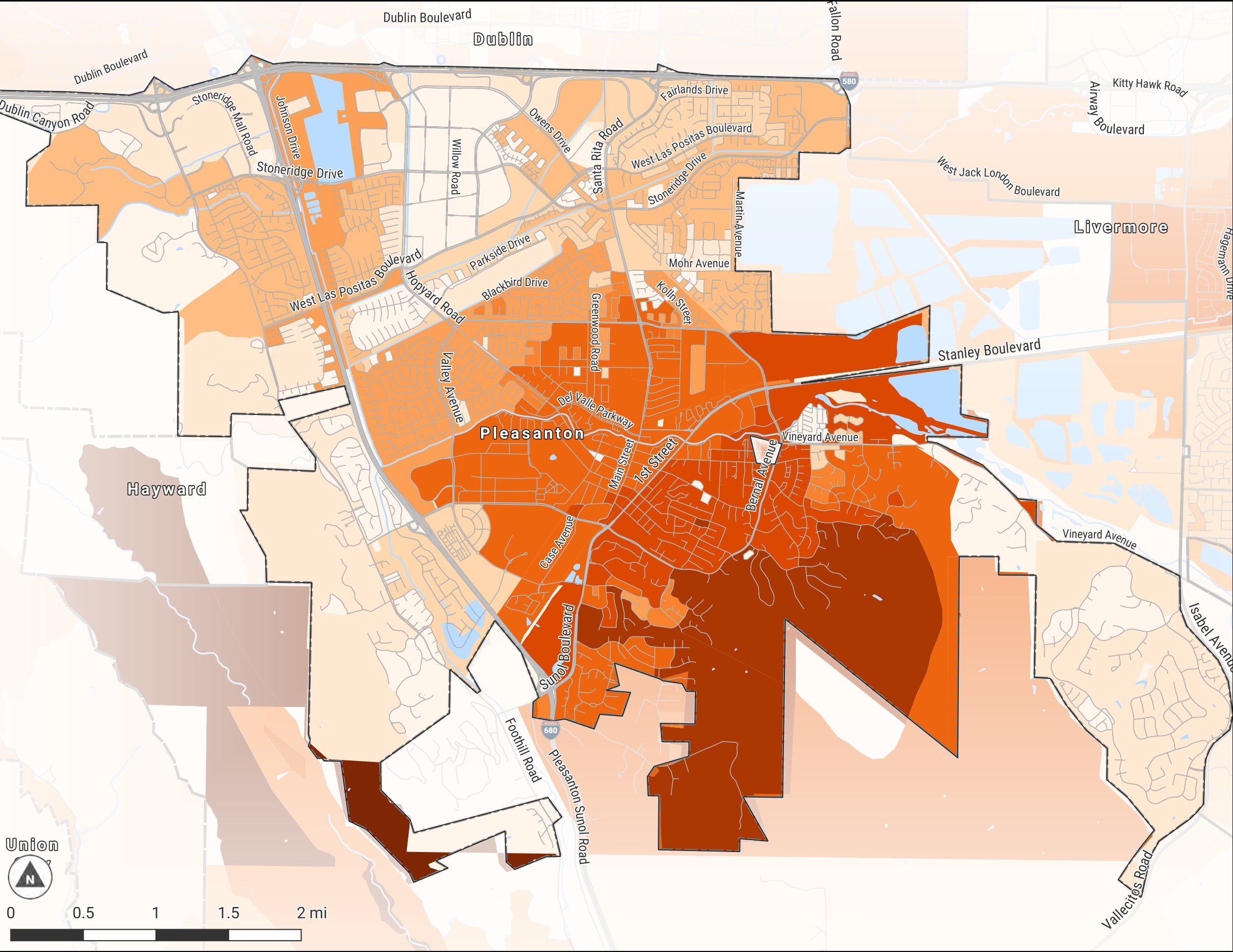


Other

- BART Station
- Amtrak Station
- ══ BART Lines

Note: Bicycle facility data used for this analysis were those received from local staff, current as of March 2018.

Alameda CTC Countywide
Active Transportation Plan





Changes in BNA Scores
Pleasanton

Changes in BNA Scores

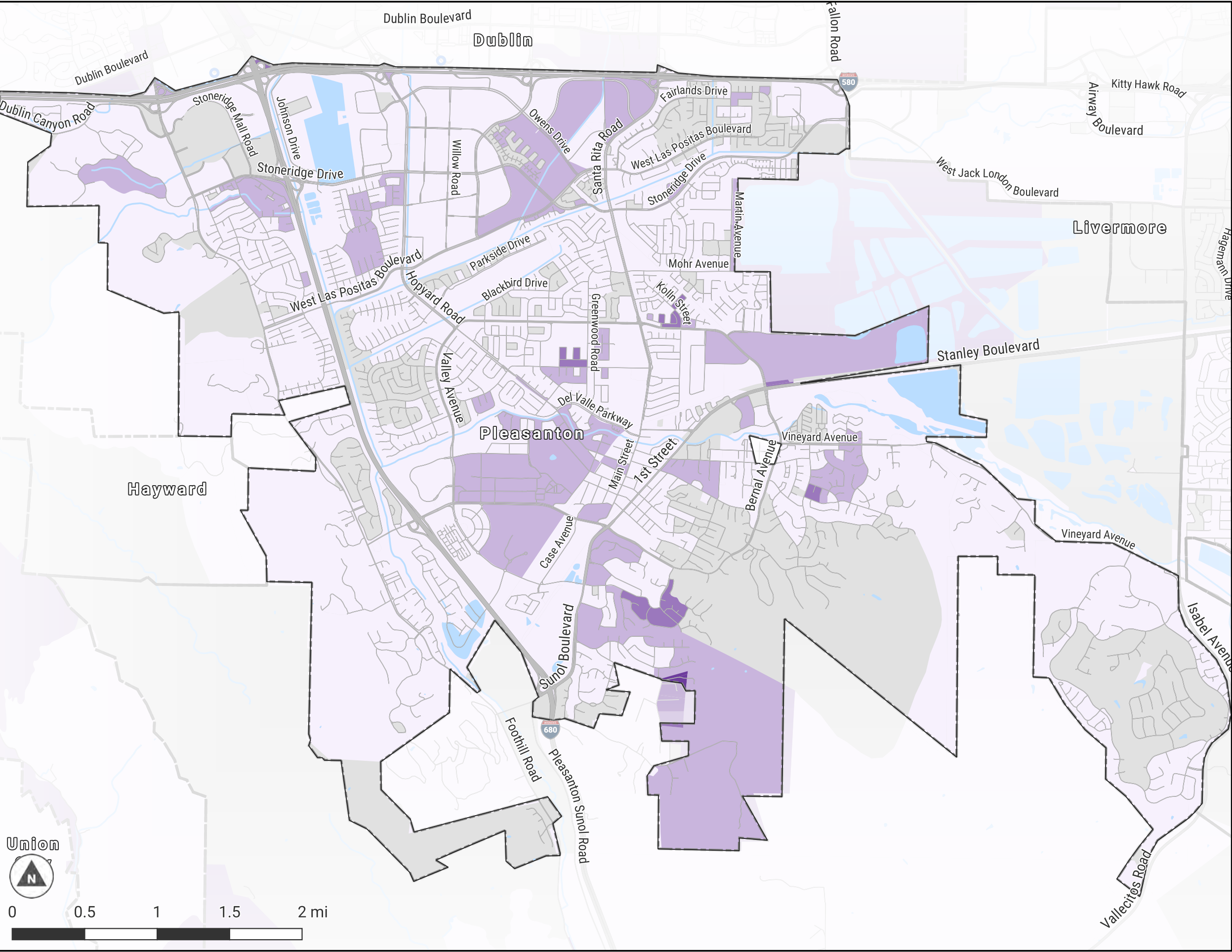
- 80 +
- 60 - 80
- 40 - 60
- 20 - 40
- 0 - 20

Other

- BART Station
- Amtrak Station
- BART Lines

Note: Bicycle facility data used for this analysis were those received from local staff, current as of March 2018.

Alameda CTC Countywide
Active Transportation Plan

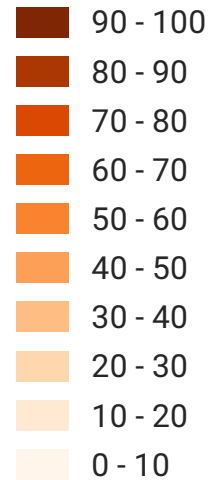




Existing BNA Scores

San Leandro

Existing BNA Scores

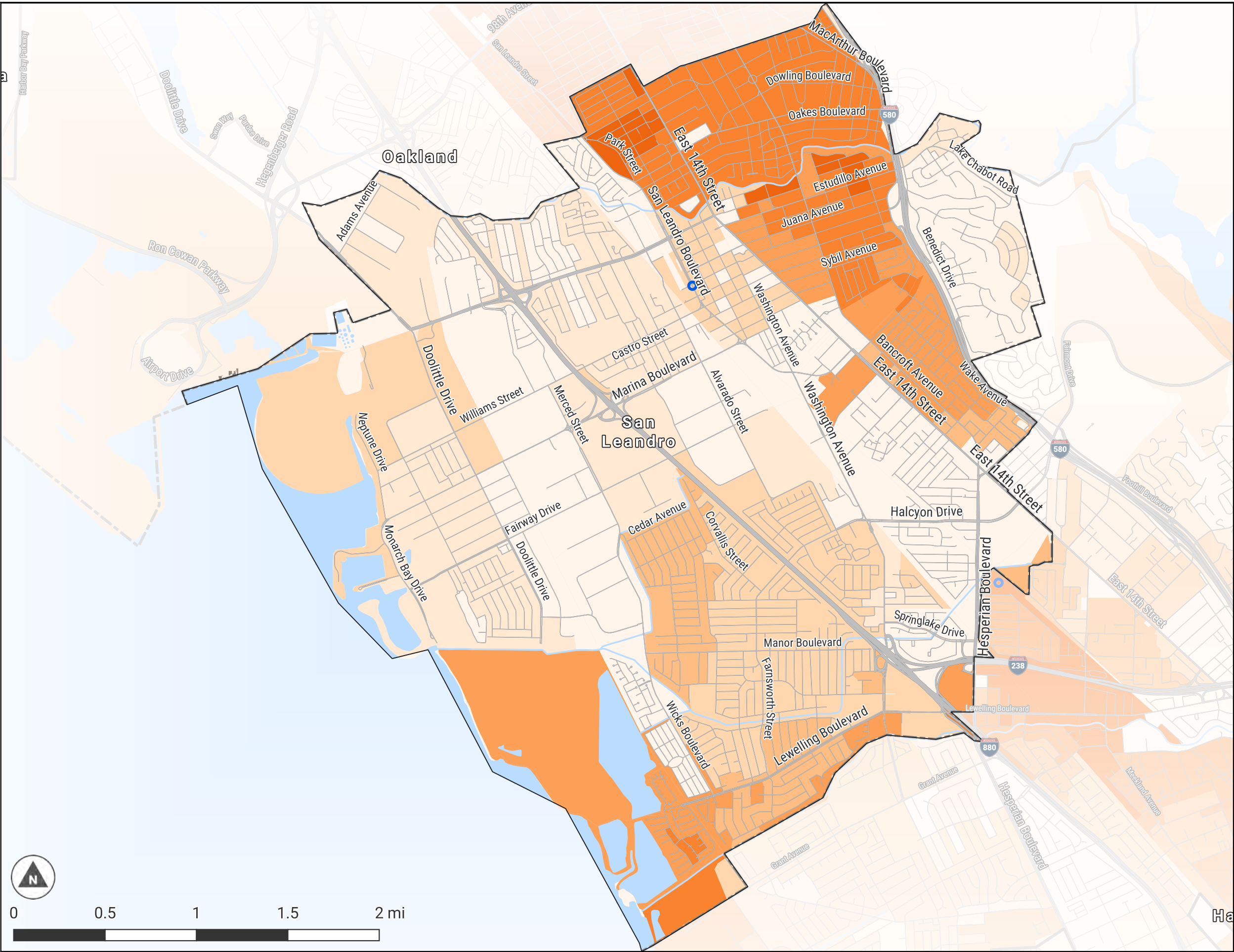


Other

- BART Station
- Amtrak Station
- BART Lines

Note: Bicycle facility data used for this analysis were those received from local staff, current as of March 2018.

Alameda CTC Countywide
Active Transportation Plan

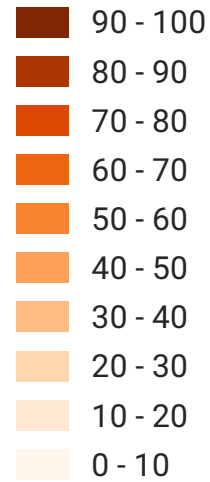




Planned BNA Scores

San Leandro

Planned BNA Scores

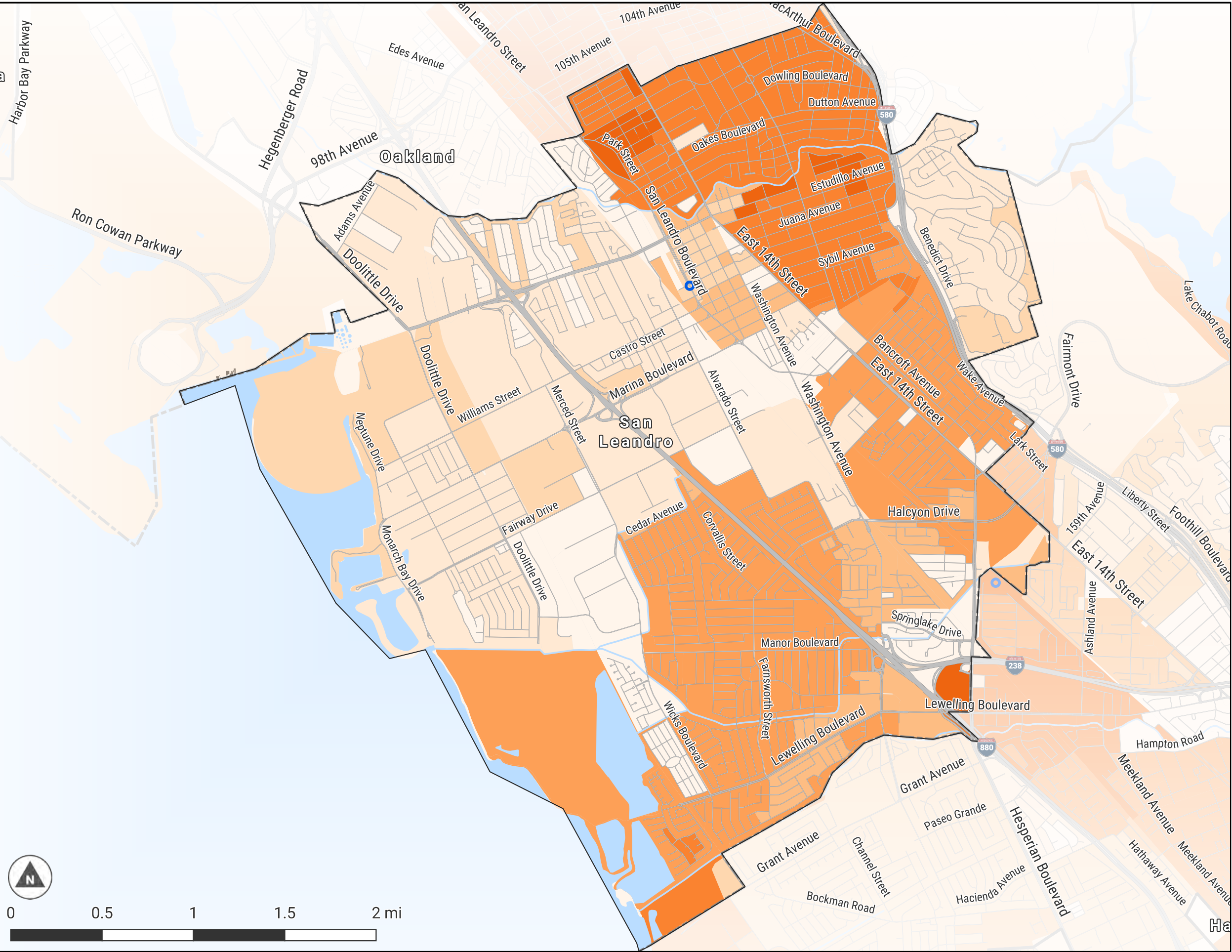


Other

- BART Station
- Amtrak Station
- BART Lines

Note: Bicycle facility data used for this analysis were those received from local staff, current as of March 2018.

Alameda CTC Countywide
Active Transportation Plan





Changes in BNA Scores
San Leandro

Changes in BNA Scores

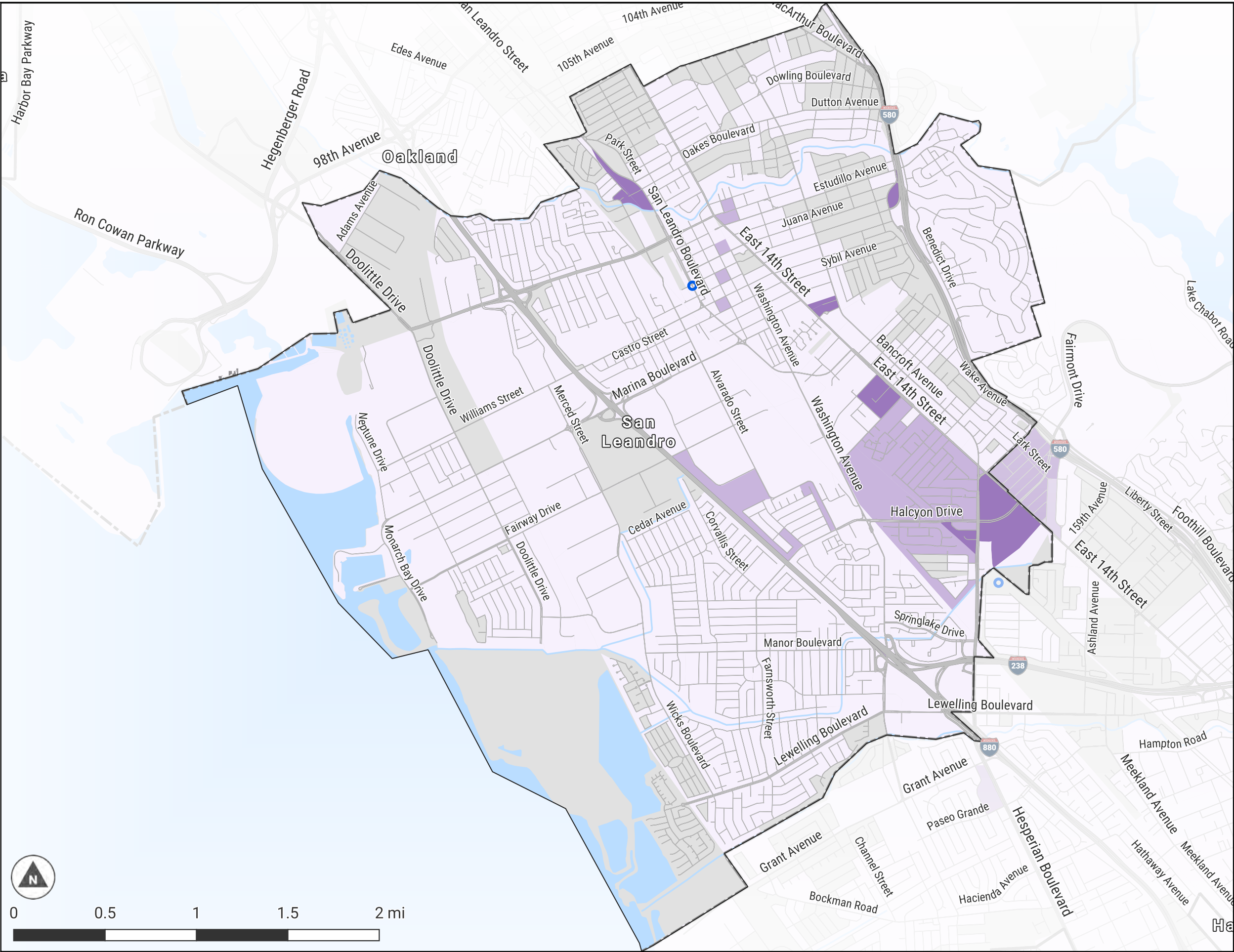
- 80 +
- 60 - 80
- 40 - 60
- 20 - 40
- 0 - 20

Other

- BART Station
- Amtrak Station
- BART Lines

Note: Bicycle facility data used for this analysis were those received from local staff, current as of March 2018.

Alameda CTC Countywide
Active Transportation Plan

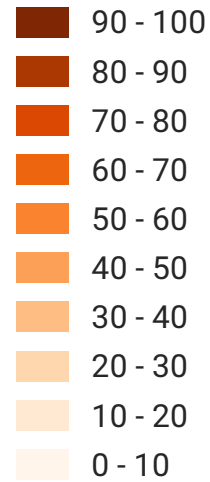




Existing BNA Scores

Union City

Existing BNA Scores

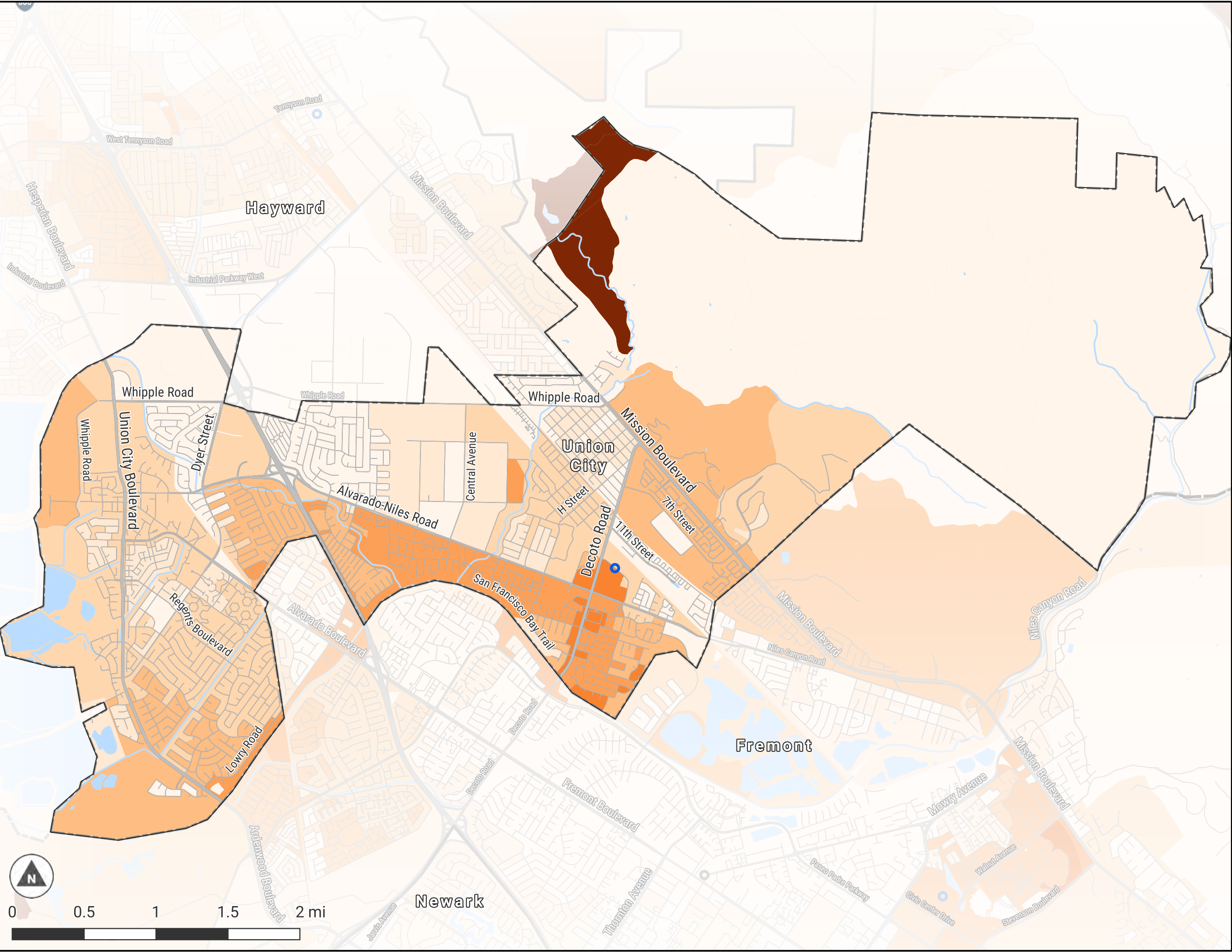


Other

- BART Station
- Amtrak Station
- ══ BART Lines

Note: Bicycle facility data used for this analysis were those received from local staff, current as of March 2018.

Alameda CTC Countywide Active Transportation Plan

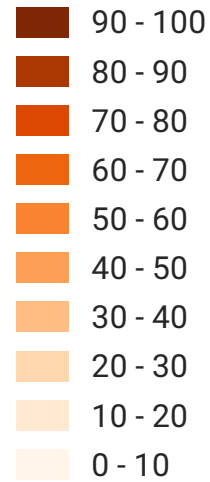




Planned BNA Scores

Union City

Planned BNA Scores

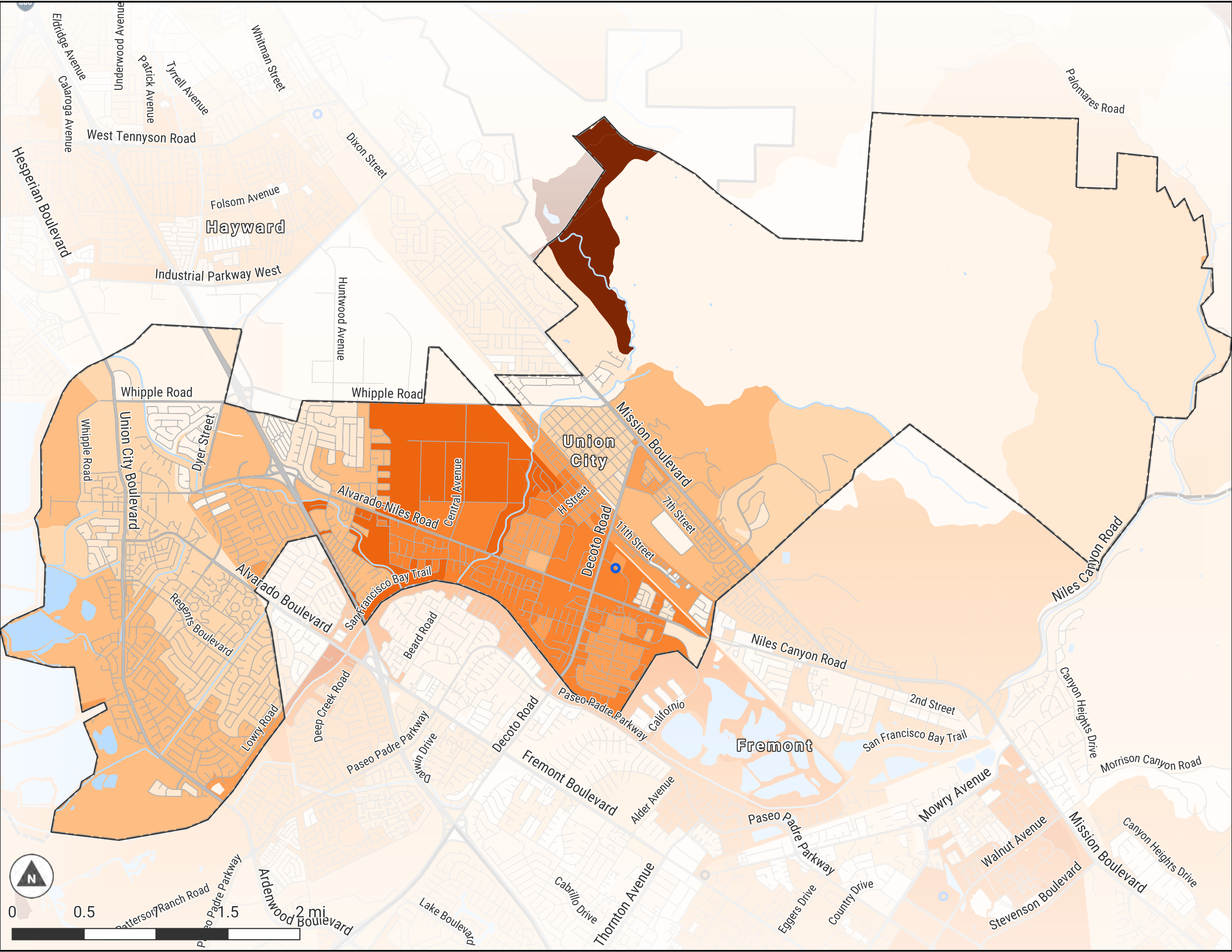


Other

- BART Station
- Amtrak Station
- BART Lines

Note: Bicycle facility data used for this analysis were those received from local staff, current as of March 2018.

Alameda CTC Countywide
Active Transportation Plan





Changes in BNA Scores
Union City

Changes in BNA Scores

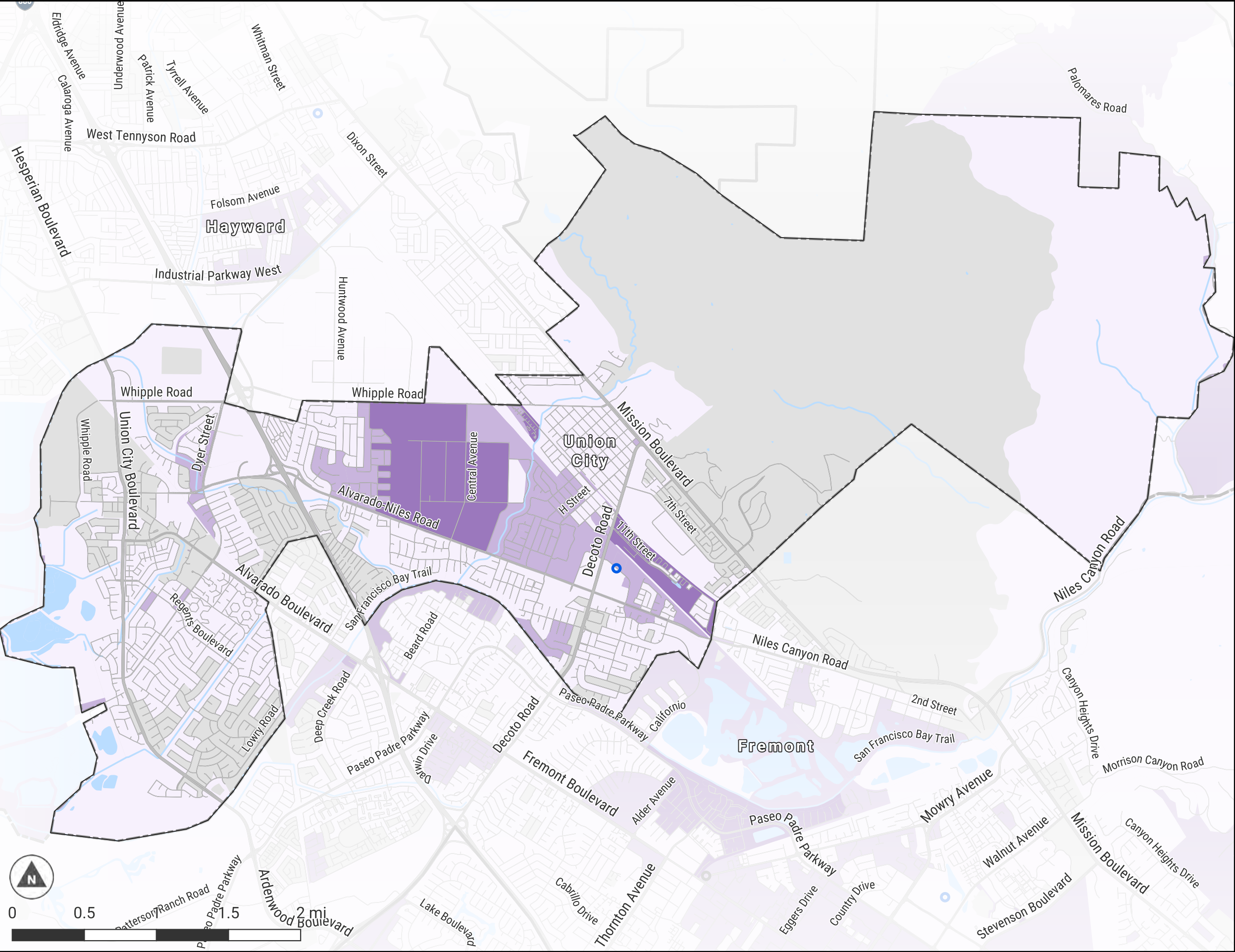
- 80 +
- 60 - 80
- 40 - 60
- 20 - 40
- 0 - 20

Other

- BART Station
- Amtrak Station
- BART Lines

Note: Bicycle facility data used for this analysis were those received from local staff, current as of March 2018.

Alameda CTC Countywide
Active Transportation Plan

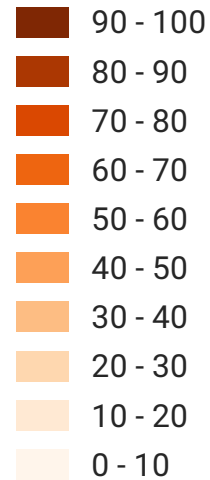




Existing BNA Scores

Urban Unincorporated Areas

Existing BNA Scores

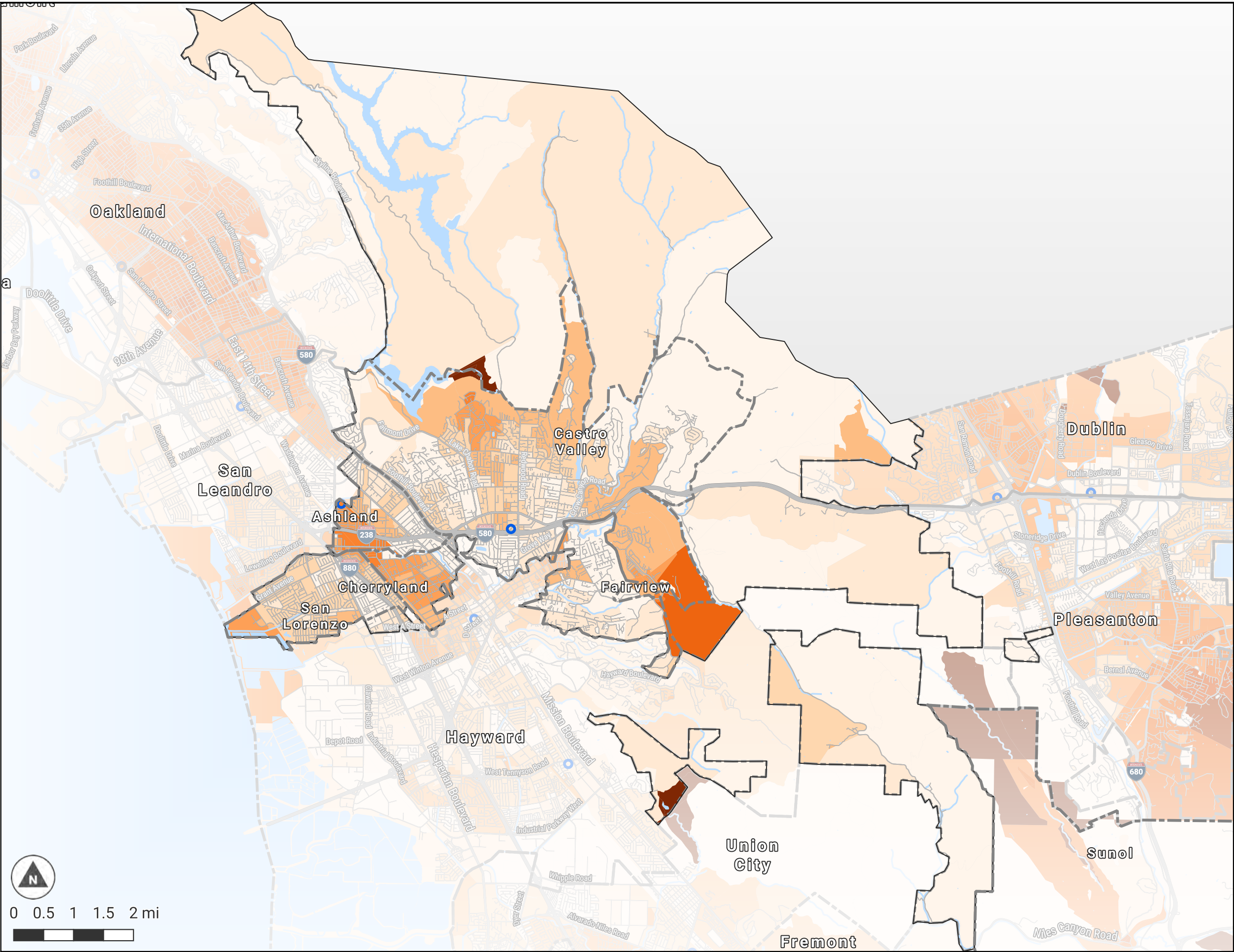


Other

- BART Station
- Amtrak Station
- ══ BART Lines

Note: Bicycle facility data used for this analysis were those received from local staff, current as of March 2018.

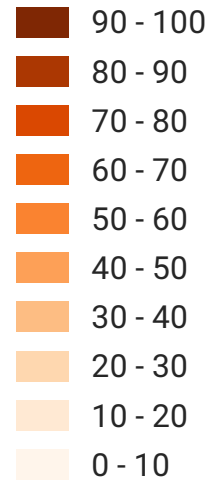
Alameda CTC Countywide
Active Transportation Plan





Planned BNA Scores
Urban Unincorporated Areas

Planned BNA Scores

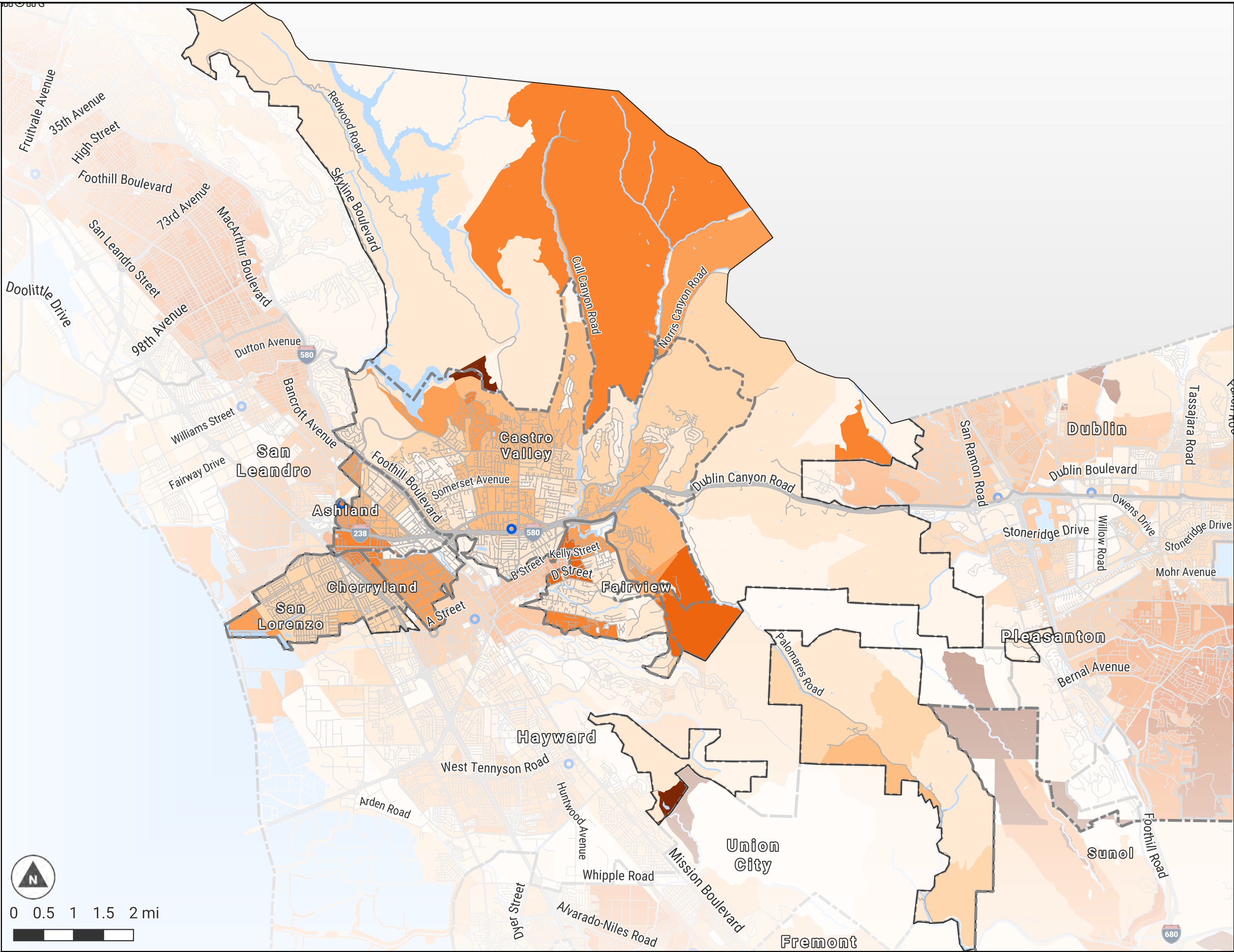


Other

- BART Station
- Amtrak Station
- ══ BART Lines

Note: Bicycle facility data used for this analysis were those received from local staff, current as of March 2018.

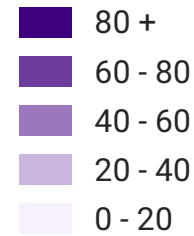
Alameda CTC Countywide
Active Transportation Plan



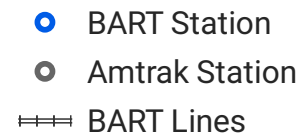


Changes in BNA Scores
Urban Unincorporated Areas

Changes in BNA Scores

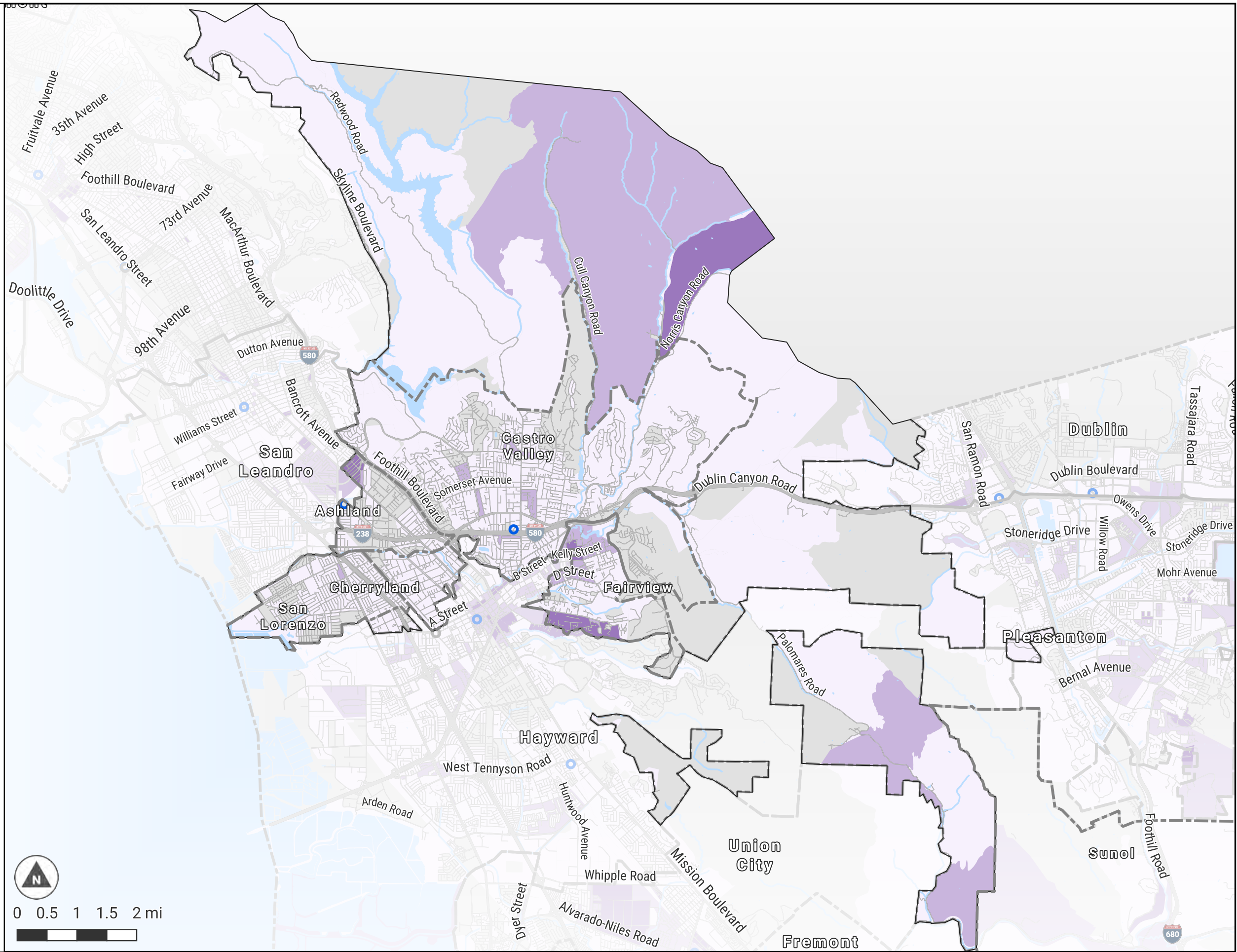


Other



Note: Bicycle facility data used for this analysis were those received from local staff, current as of March 2018.

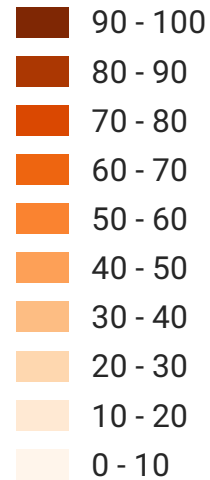
Alameda CTC Countywide
Active Transportation Plan



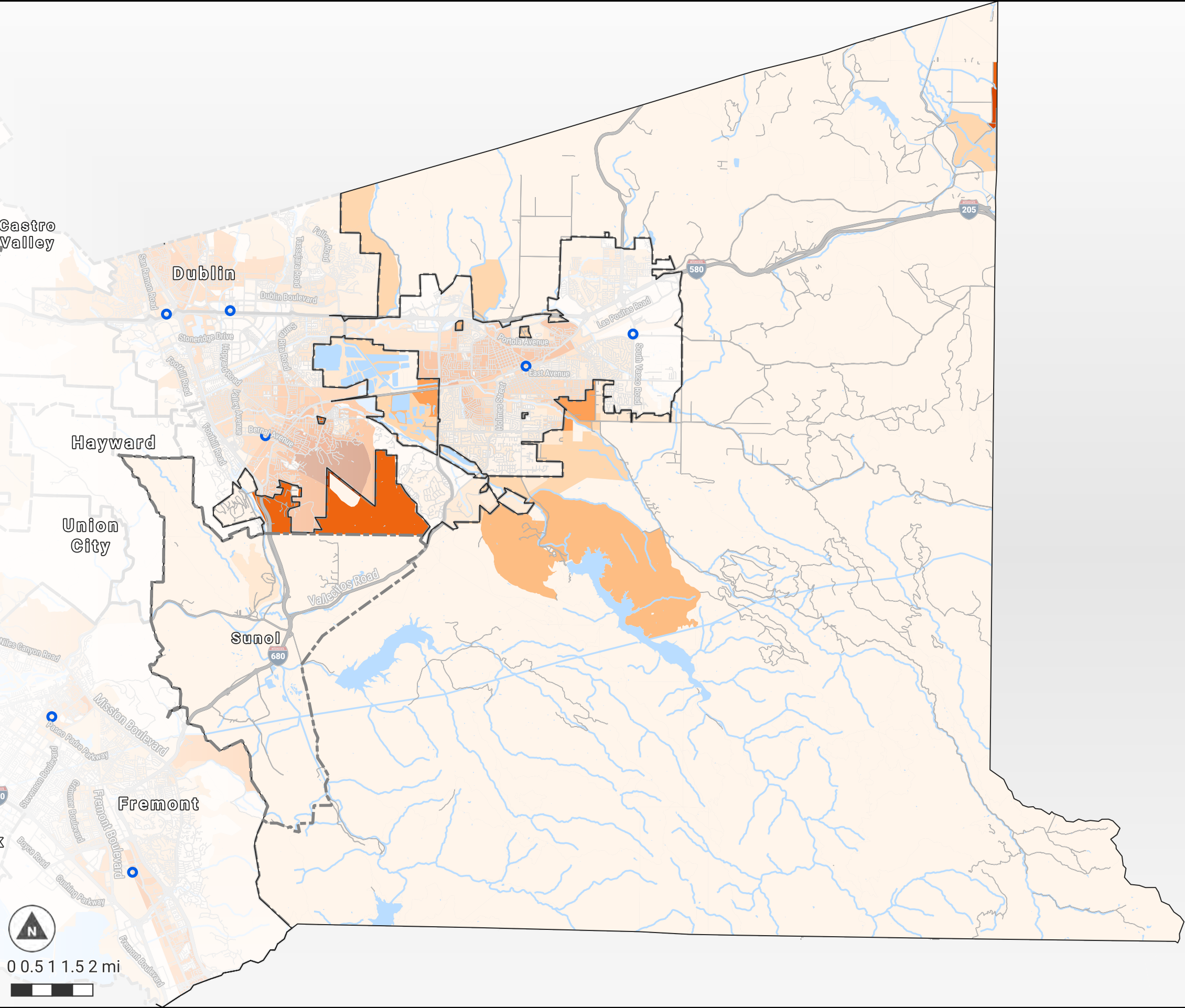
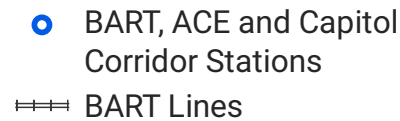


Existing BNA Scores
Unincorporated East County

Existing BNA Scores



Other



Note: Bicycle facility data used for this analysis were those received from local staff, current as of March 2018.

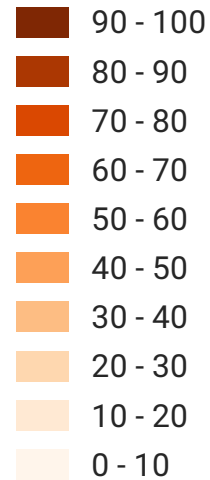
Alameda CTC Countywide
Active Transportation Plan



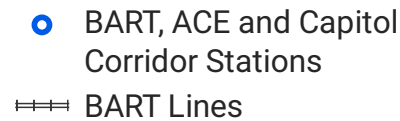


Planned BNA Scores
Unincorporated East County

Planned BNA Scores

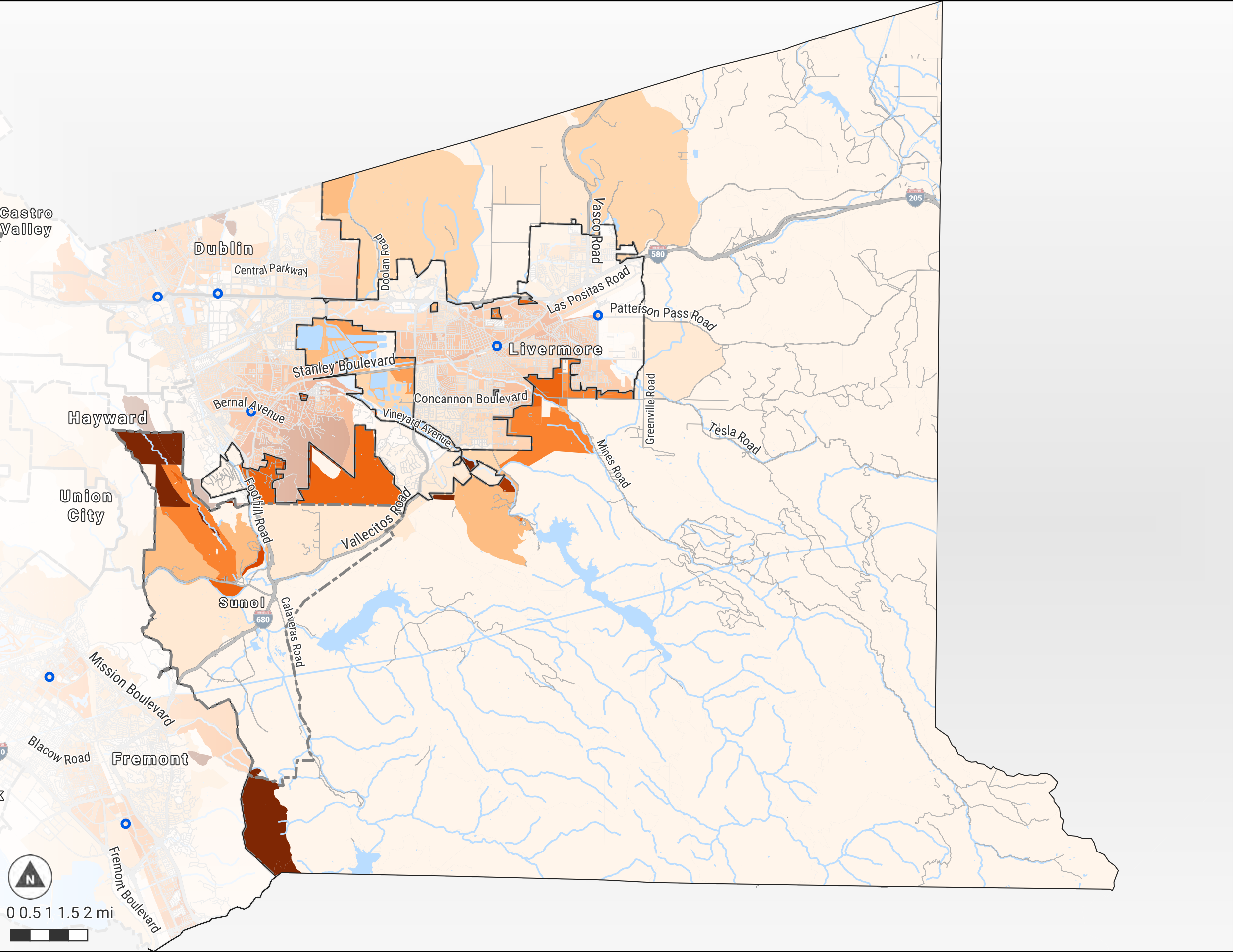


Other



Note: Bicycle facility data used for this analysis were those received from local staff, current as of March 2018.

Alameda CTC Countywide
Active Transportation Plan





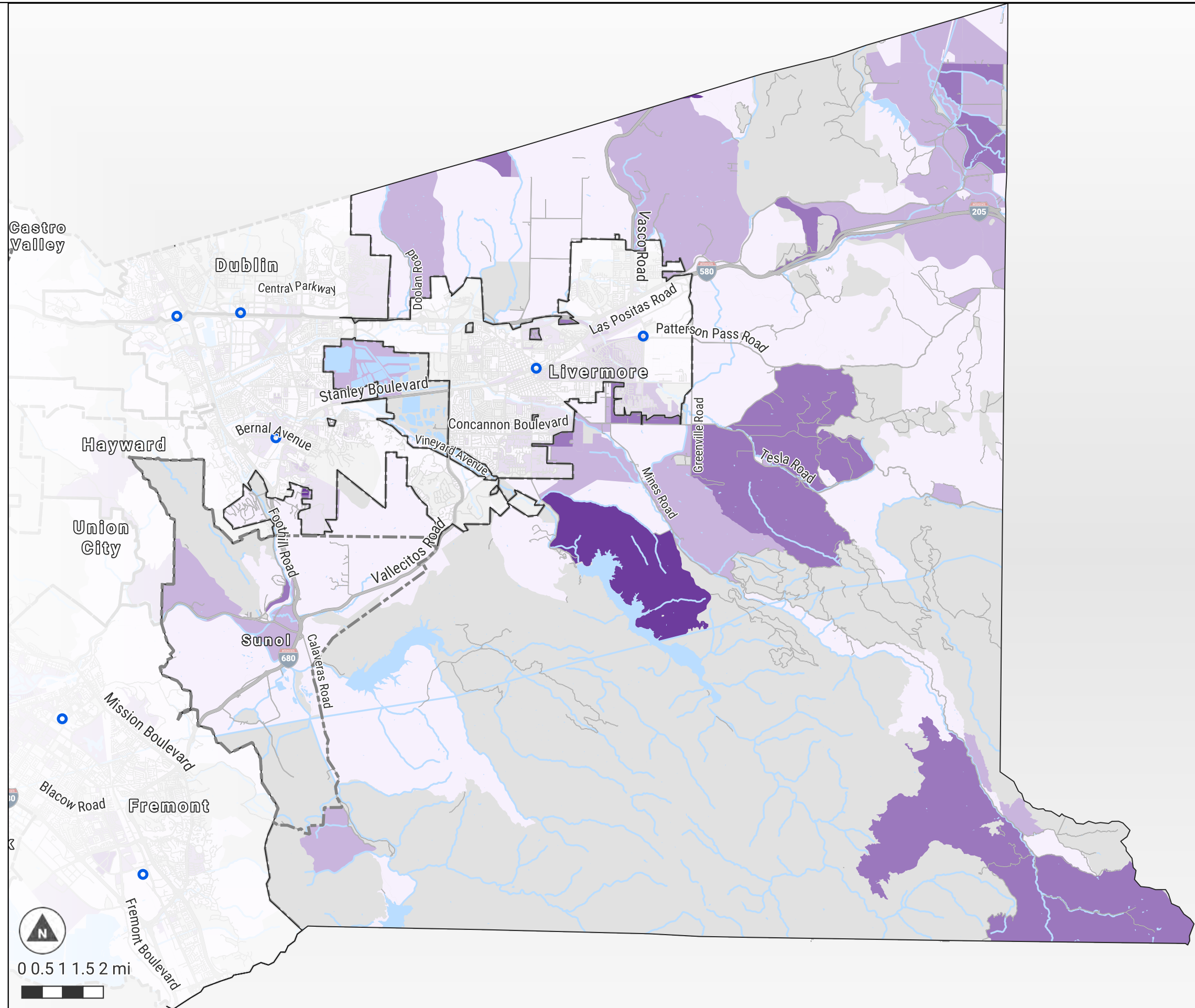
Changes in BNA Scores
Unincorporated East County

Changes in BNA Scores

- 80 +
- 60 - 80
- 40 - 60
- 20 - 40
- 0 - 20

Other

- BART, ACE and Capitol Corridor Stations
- BART Lines



Note: Bicycle facility data used for this analysis were those received from local staff, current as of March 2018.

Alameda CTC Countywide
Active Transportation Plan

